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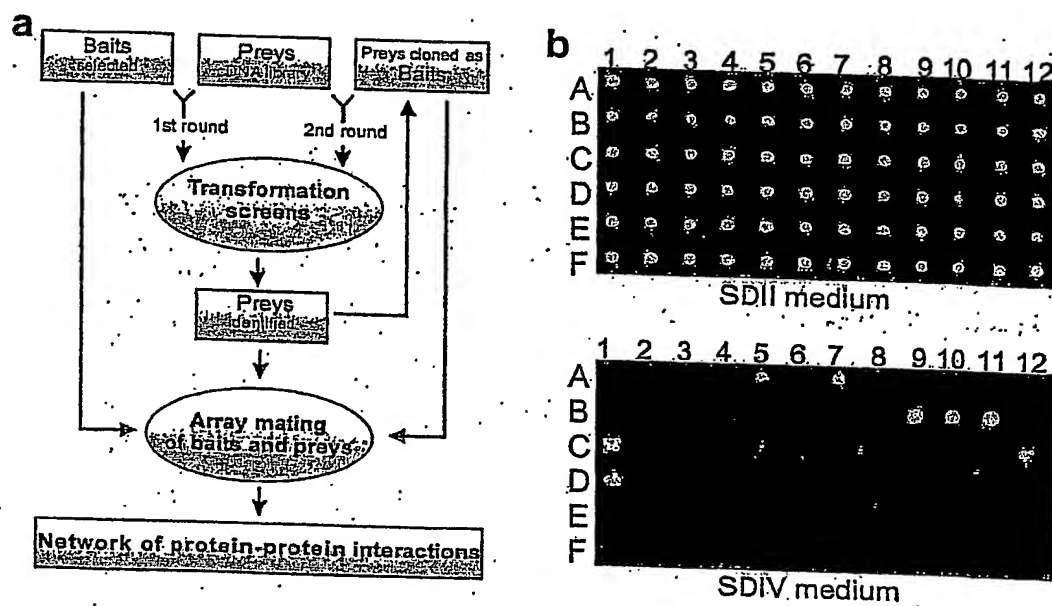
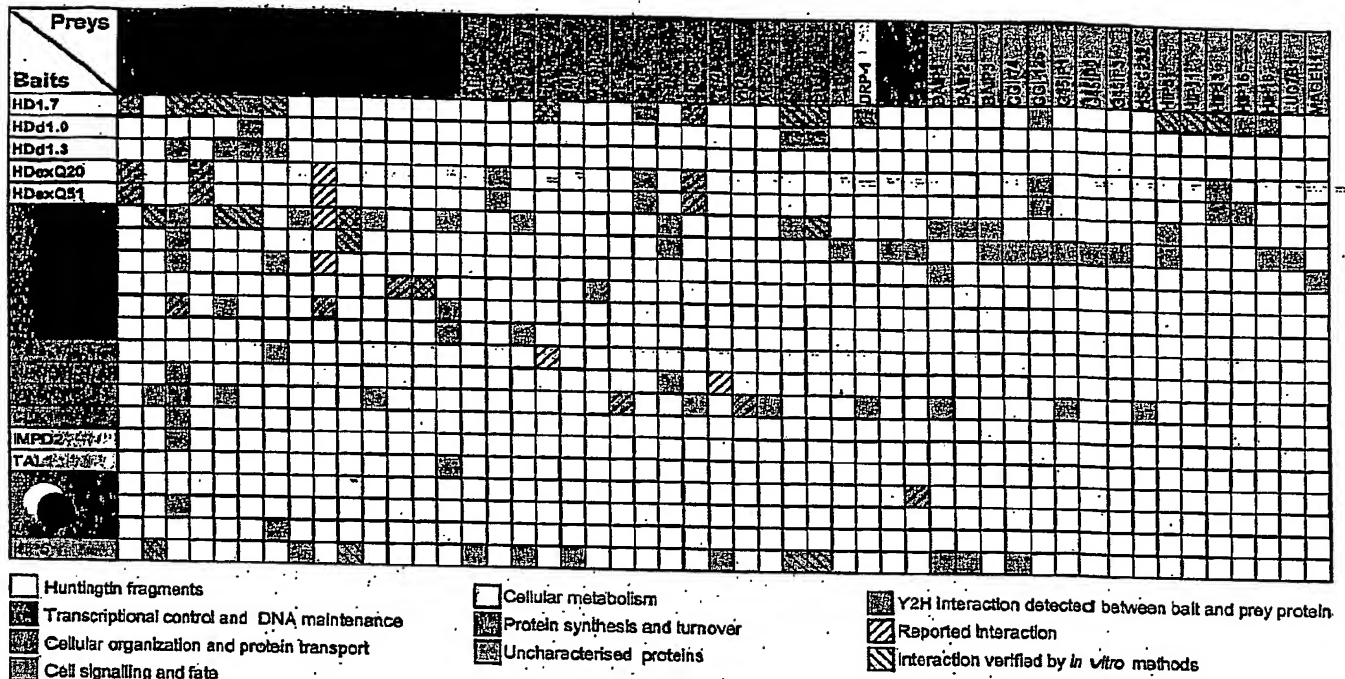


Figure 1

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a



b

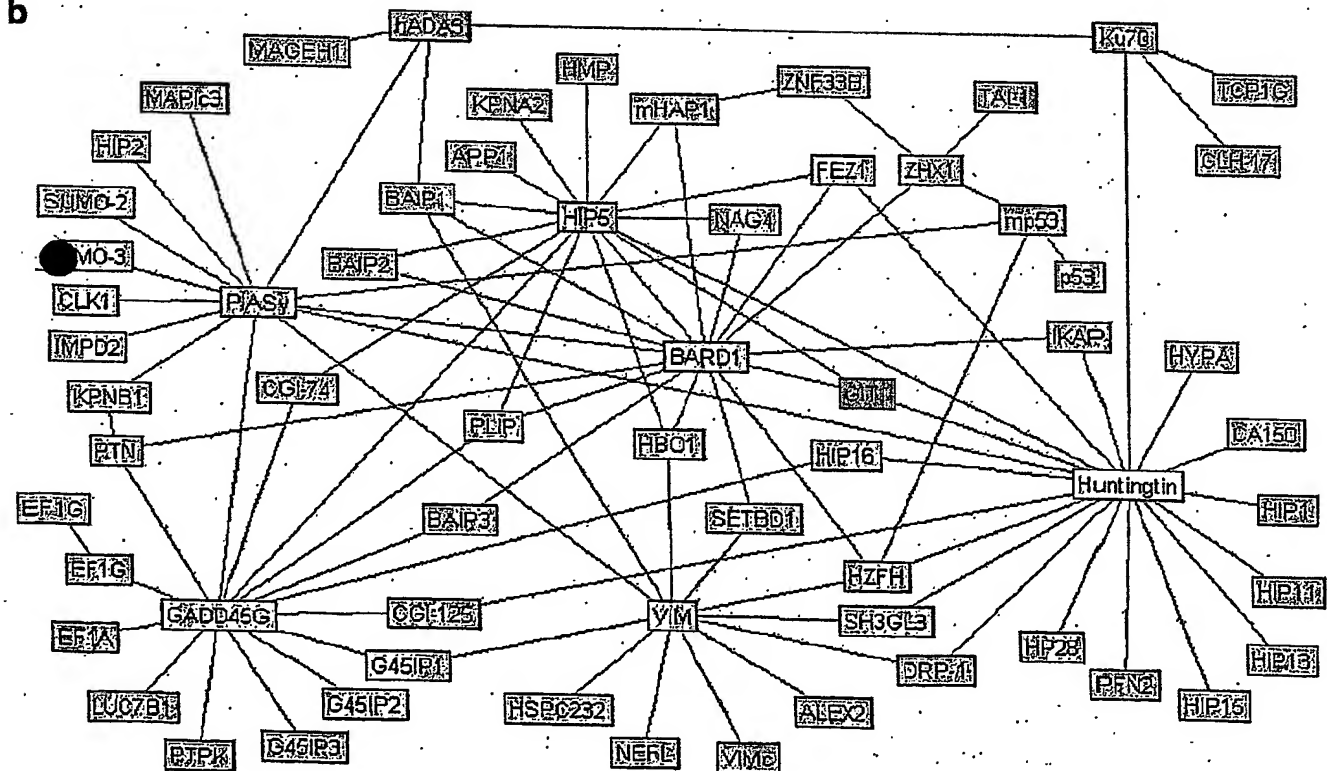


Figure 2

## BEST AVAILABLE COPY

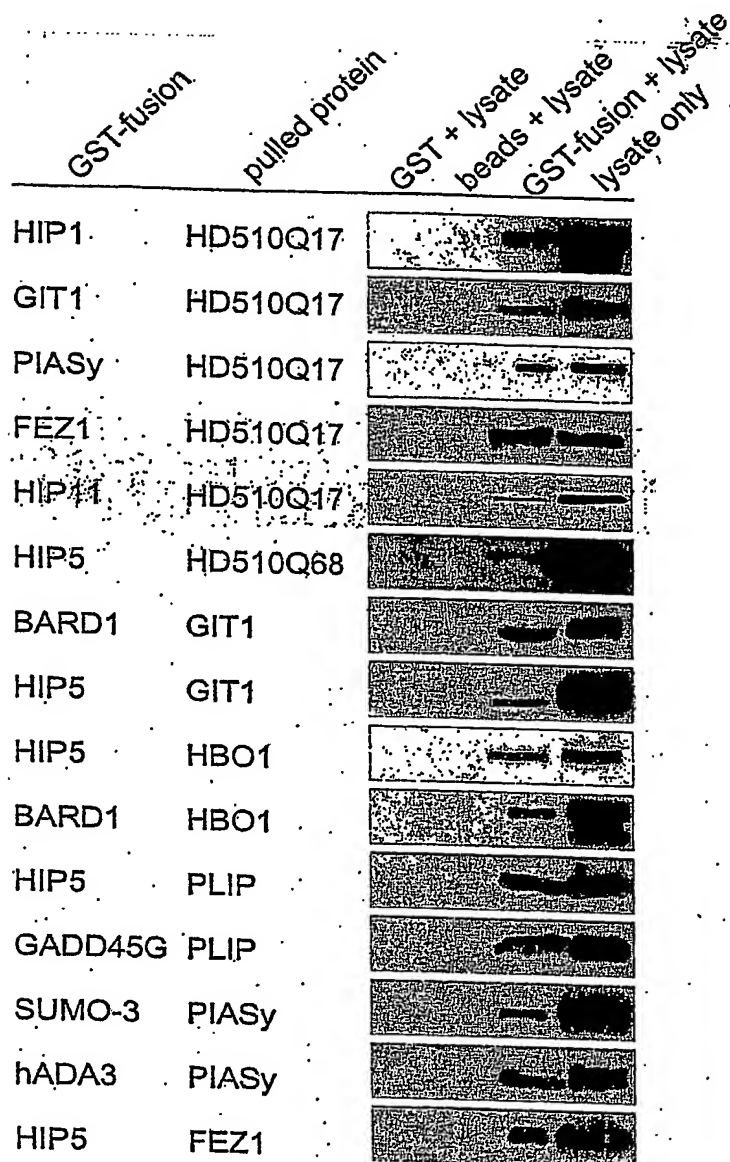


Figure 3

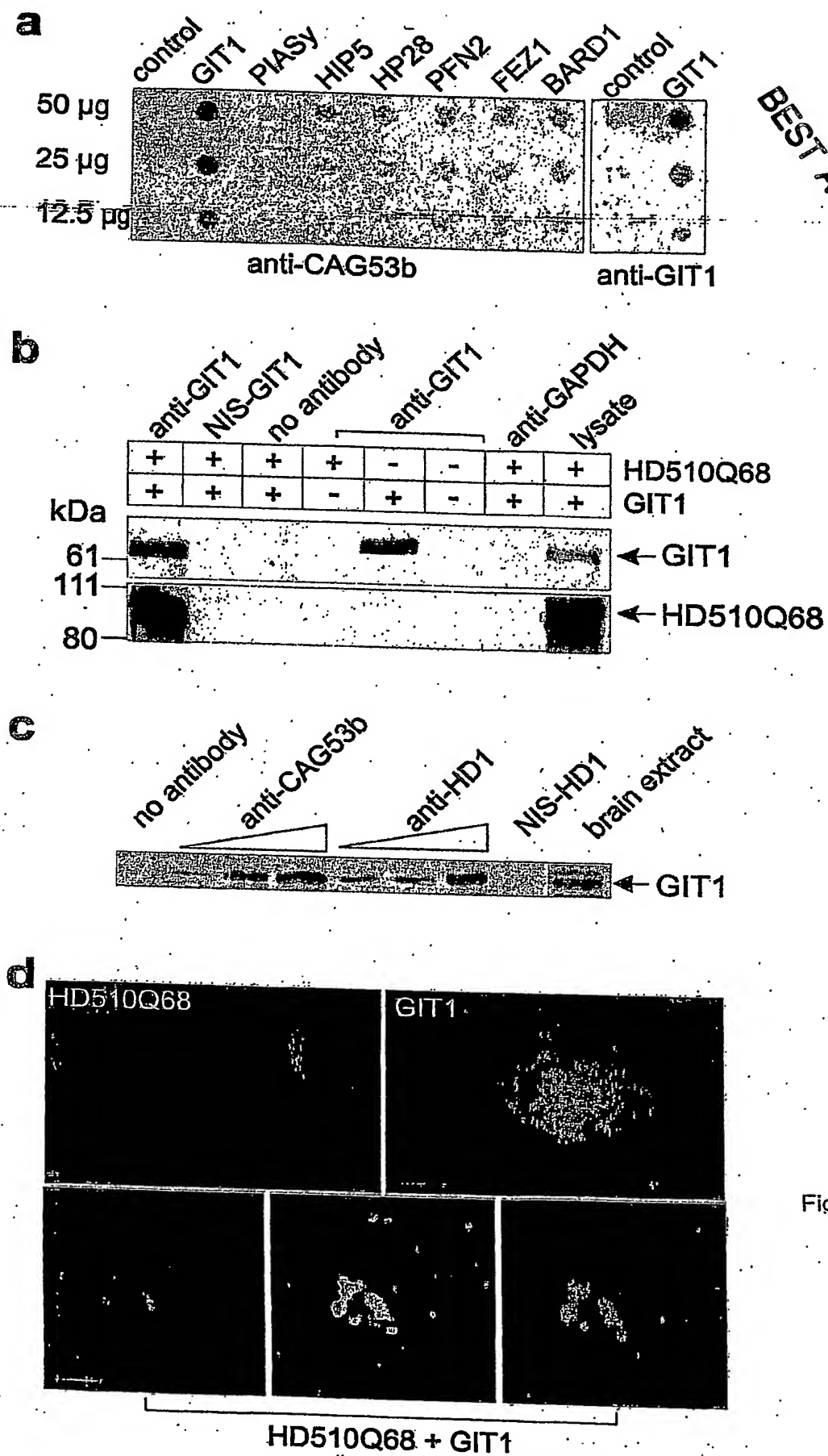
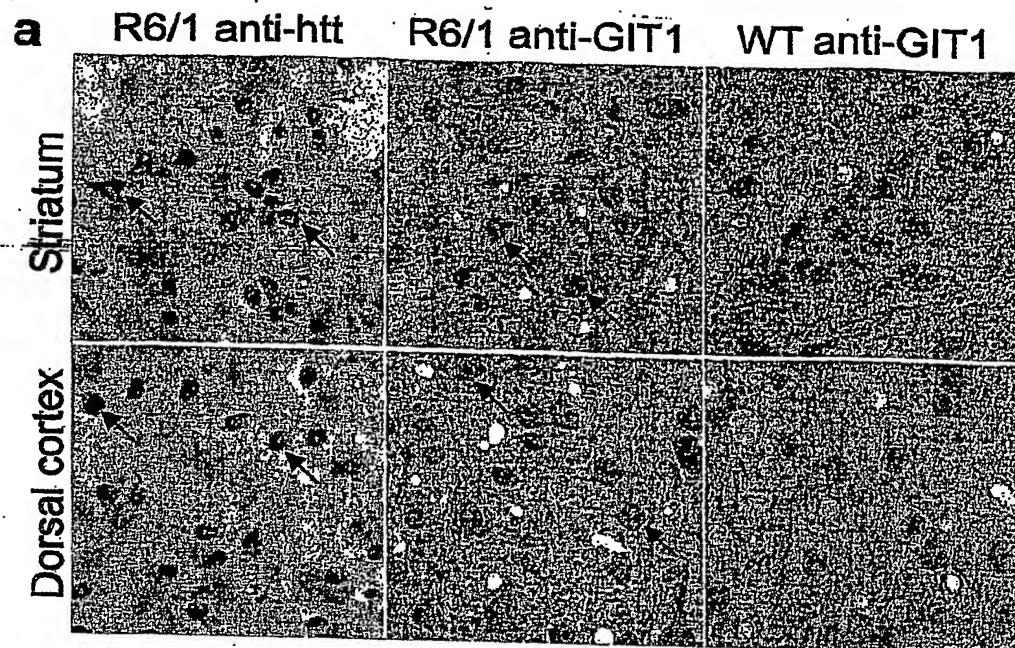


Figure 4





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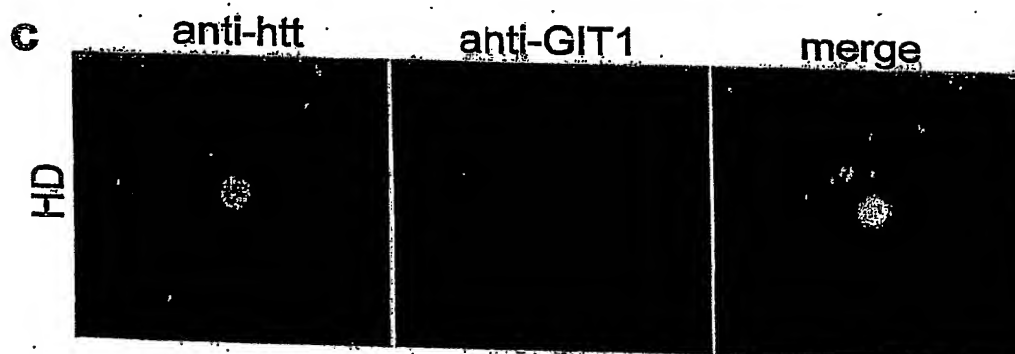
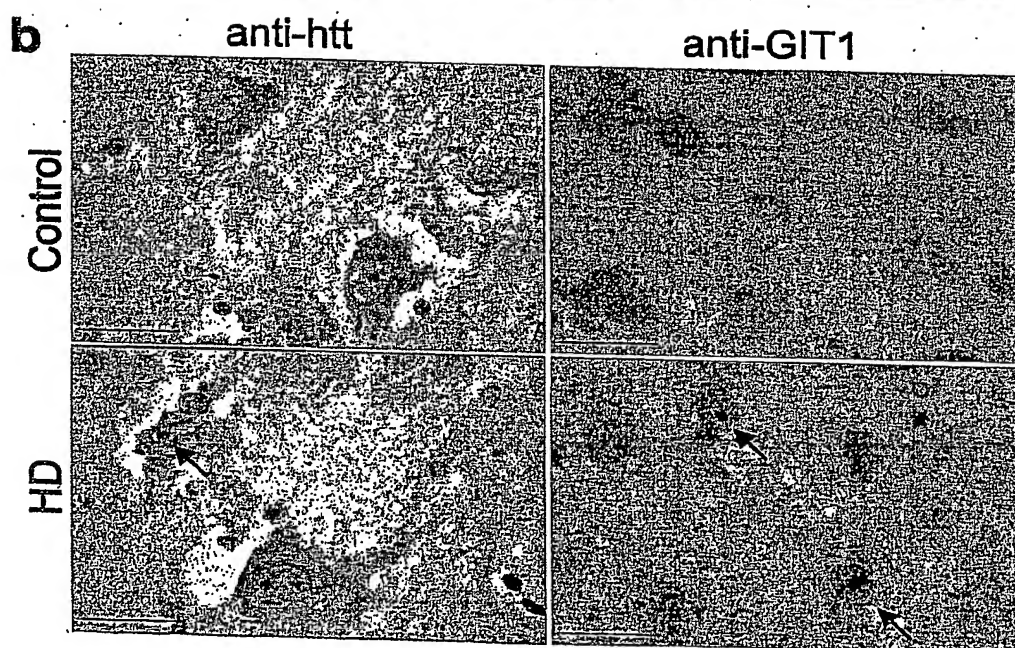


Figure 5

>ALEX2  
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ATPGAHTGAIPKATSATGAVPKGGGKGVTRSRNGGKGKGS KVEVDELGMGFRPGDGA AAAAAS  
ANGGQAF LAEVPDSEEGESGWTDTESDSDSEPETQRRGRGRPVAMQKRPPFYEIDEILGVRDLRK  
VLALLQKSDDPFIQQVALLTSLNNANYSCNOETIRKLGGLPIIANMINKTDPHIKEKALMAMNNLS  
ENYENQGRLEQVYMNKVMDDIMASNENSAVQVGLKFLTNMTITNDYQHLLVNSIANFFRLLSQGGG  
KIKVEILKILSNFAENPDMLKLLSTQVPASFSSLYNSYVESBILINALTLFEI IYDNLRAEVFNY  
REFNKGSLFYLCTTSGVCVKIRALANHHDLLVKVKVIKLVNKF  
>APP1  
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THATRVIALINDORRAALEGFLAALQADPPQAEVLLALRRYLRAEQKEQRHTLRHYQHVA AVDP E  
KAQQMRFOVHTLQVIEERVNQSLGLLDQNPHLAQELRPQIQELLHSEHLGPSELEAPAPGGSSED  
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>BAIP2  
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DLLYKSLVPVPNSSSSSSSSNSLVSAENPPQRLGMC AKEMVIFFGHPRDPFLCYDPYSGDIYTMP  
SPLTSFAHTKTVTSSAVCVSPDHDYLA AQPRKDLWVYKPAQNSWQQ LADRLLCREGMDVAYLNGY  
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MWLN CASLKRSDFOEACVFENDEIYICDIPVMKVYNPARGEWRRISNIPLDSETHNYQIVNHDQKL  
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>BAIP3  
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KEGERKQONFDKRRKAKTNKKMDHIK KRKTENAYNAI INGEANVTGSQLLSSILPTSDVSOHNILT  
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KQVLRKEEAAL EEMRKKMHQK  
>BARD1  
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QPAIKK DASAQQDSYEFVSPSPPADV SERAKKASARSGKKQKKKTLAEINQKWNLEAEKEDGEFDS  
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SPPSCKRKVGGTSGSKT VTCPMNSLVFHQVHLLH  
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K

Figure 6

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>CGI-125  
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>CGI-74  
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HEELKRVVAEKQEKRNQERLKRREEREREEREKLRRSRSHSKNPKR

>CLH-17  
MAQILPIRFQEHLLQNLGINPANIGFSTLTIMESDKFICIREKVGEQAQVVIIDMNDPSNPIRRPI  
SADSAIMNPASKVIALKAGKTLOIFNIEMKSKMKAHTMTDDVTFWKWISLNTVALVTDNAVYHWSM  
EGESQPVKMFDRHSSLAGCQIINYRTDAKQKWLTLTGISAQQNRVVGAMQLYSVDRKVSQPIEGHA  
ASFAQFKMEGNAEESTLFCFAVRGQAGGKLHIIIEVGTPTGNQPFPPKAVDVFFPPEAQNDFPVAM  
QISEKHDVVFLITKYGYIHLVDLET

>CLK1  
DAWVLEHLNNTTDPNSTFRVQMLEWFEHHGHICIVFELLGLSTYDFIKENGFLPFRLDHIRKMAVQ  
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>DRP-1  
KDNFTLIPEGVNGIEERMRTVVWDKAVATGKMDENQFVAVTSTNAAKIFNLYPRKGRIAVGSDADV  
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>EF1A  
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VLDCHTAHIACKFAELKEKIDRRSGKKLEDGPKFLKSGDAIVDMVPGKPMCVESFSDXPPLGRFA  
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>EF1G (bait)  
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>EF1G (prey)  
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>FEZ1  
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Figure 6 (continued)

>G45IP1  
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NLRHKLKEVTSSVFKPPEDKPEDVHTSHPLKORRI  
>G45IP2  
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DPGLPSTEDVILKTEQVT KNIQELLRAAQEFKHDSFVPCSEKIHLAVTEMASLFPKRPALPEVRS  
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LLRLAKEEVSRQELRQRVRMADNEVMDAFRKIMAA RQKKRTPTKKEKDQAWKTLKERESILKLLDG  
>HBO1  
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FSTDL EHTDSSES DGTSRR SARVTRSSARLSQSSQDSSPVRNLQSF GTEEPAYSTRRVTRSQQQPT  
PVT PKKYPLRQTRSSGSETEQVVD FSDRET KNTADHDESPPTPTGNAPSSES DIDISSPNVSHDE  
STAKDMSLKDSGSDLSHRPKRRRFHESYNFMKCP TPGCNSLGHLTGKHERHFSISGCP LYHNLSA  
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IYQNLCLLAKLFLDHKTLYYDVEPFLFYVMTEADNTGCHLIGYFSKEKNSFLNYNVSCILTMPQY  
MRQGYGKMLIDFSYLLSKVEEKVGS PERPLSDGLISYRSYWKVLLRYLHNFQGKEISIKEISQE  
TAVNPVDIVSTLQALQMLKYWKGKHLVLKRODLIDEWIAKEAKRSNSNKTMDPSCLKWTPPKGT

Figure 6 (continued)





&gt;HIP16

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 TTPKVVTKPGHIINPIKAEDVGYRSSSRSDLSVIQRNPKRITTRHKKQLKKCSVD

&gt;HIP2

MANIAVQRIKREFKEVLKSEETSKNQIKVDLVNENFTELGEIAGPPDTPYEGGRYOLEIKIPETY  
~~PEREPKVRFTTKLWHPNIFSSVTGATCLDITLKDQWAAAMTLRTVLLSLQALLAAAEPPDDPQDAVVAN~~  
 QYKQNPMEFKQTARLWAHVYAGAPVSSPEYTKKIENLCAMGFDRNAVIVALSSKSWDVETATELLL  
 SNX

&gt;HIP5 (bait)

FLKSILKKESEYEHGYLKALIINQSFKFGNQKAAAIRDSIELTKEKGAEIPKTIKKLRWFDETSNI  
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 FNSKHVLPTEHSLNQWNQESSPLSNACSDLVTVIPSLPSYCSSECQTFKINHSNGTQAVARQDA  
 TLYCTQRSFVCEESYPSVTLRTAEESVPLWKRGPVNLHQNKRATGSTVMRRKRIAETKRNILEQ  
 KRQNPQSVGQKYSEQINNFGQSVLLSSSEPKQTTTGTSTYIEEVSDDSTSEFLMAENLVKASVPDEI  
 LTVLNSKQIQKSNLPLNKTQQFNICTLSAEEQKILESINLNLNERLHYIQESICKNPSIKNTLQIIP  
 LLEKREDRTSSCRDKR

&gt;HIP5 (prey)

FLKSILKKESEYEHGYLKALIINQSFKFGNQKAAAIRDSIELTKEKGAEIPKTIKKLRWFDETSNI  
 ENNAENSHSLKNKTGTTQQHSQQPHIQSGAGSNIIISVSTCAVNSADTKKSREDSISENVTTLGSG  
 ADHMPNLCFIPSGYNFAKHAWPASKKEESKIPVHDDSKTKQKPKQRGRAKIIKPKGSAKVQSGFIC  
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 FNSKHVLPTEHSLNQWNQESSPLSNACSDLVTVIPSLPSYCSSECQTFKINHSNGTQAVARQDA  
 TLYCTQRSFVCEESYPSVTLRTAEESVPLWKRGPVNLHQNKRATGSTVMRRKRIAETKRNILEQ  
 KRQNPQSVGQKYSEQINNFGQSVLLSSSEPKQTTTGTSTYIEEVSDDSTSEFLMAENLVKASVPDEI  
 LTVLNSKQIQKSNLPLNKTQQFNICTLSAEEQKILESINLNLNERLHYIQESICKNPSIKNTLQIIP  
 LLEKREDRTSSCRDKR

&gt;HMP

QBQVKIESLAKSLEDALRQTASVTLOAIAAQNAAVQAVNAHSNIIKAAMDNSEIAGEKKSQAQWRTV  
 EGALKERRKAVDEAADAALLKAKEELEKMKSVIENAKKEVAGAKPHITAAEGKLHNMIVDLNDNVK  
 KVQAAQSEAKVVSQYHELVVQARDDFKRELDSTPEVLPGWKMSVSDLDLADKLSTDDLNSLIAHAH  
 RRIDQLNRELAEQKATEKQHITLAELEKQKLEEKRAFDASAVAKALEHHRSEIQAEQDRKIEEVRDAM  
 ENEMRTQLRRQAAHTDHLRDVLRVQEQELKSEFEQNLSEKLSEQELQFRRLSQEQVDNFTLDINT  
 AYARLRGIEQAVQSHAVAEHEARKAHQLWLSVEALKYSMTSSAETPTIPLGSAVEAIKANCSDNE  
 FTQALTAAPPESLTRGVYSEETLRARFYAVQKLARRVAMIDETRNSLYQYFLSYLQSLLLFPPOQ  
 LKPPPELCPEDINTFKLLSYASYCIEHGDLELAAKFVNQLKGESRRVAQDWLKEARMTLETQIVE  
 ILTAYASAVGIGTTQVQPE

&gt;HP28

PPADSLKDYDTFVLVSRNTEKRSPPKARLLKVSPQQPGPSGAPQPPKTKLPSTPCVPDPPTKQAEI  
 LNAIILPPREWEDTQLWIIQVSSSTPSTRMDVVHLQEQLDLKLQQRQARETGICPVRRELYSQCFDE  
 LIREVTINCAERGLLLLRVRDEIRMTIAAYQTLYESVAFGMRKALQAEQKSDMERKIAELETEK  
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&gt;HSPC232

RRRADGCIYGVSRARRVAYRRDEMWSSEGRYERYIPREAPPRSHPSDESGYRWTRDDHSASRQ  
 EYRDMRDGFRRKSFYSSHYARERSPYKRDNTFFRESPVGRKDSPHSRSGSSVSSRSYSPEKSKSYS  
 FHQSQHRNKERPQSLKTSRDTSPSSGSAVSSSKVLDKPSRLTEKELAAASKWAAEKLEKSDEN  
 LPEISEYEAGSTAPLFTDQPEEPESNTTHGIELFEDSQLTTRSKAIASKTKEIEQVYRQDCETFGM  
 VVKMLIEKDPSLEKSIQFALRQNLHEIGERCVEELKHFIAYDYDTSTQDFGEFF

Figure 6 (continued)

>HYPA  
GRRRSSLSPTMRPGTGAERGGLMMGHPGMHYAPMGHMPMGQRANMPFVPHGMMPQMMPPMGGPPMG  
QMPGMMSSVMPGMMMSHMSQASMQPALPPGVNSMDVAAGTASGAKSMWTEHKS PDGRTYYNTETK  
QSTWEKPDDLKTPAEQLLSKCPWKBYKSDSGKPYYSQTKESRWAKPKELEDLEGYQNTIVAGSL  
ITKSNLHAMIKAESSKQEECTTTSTAPVPTTEIPTTMSTMAAAEAAA AVVAAAAAAAAAAAAANA  
NASTSASNTVSGTVPVVPPEVTSIVATVVDNENTVTLSTEEQAQLTSTPAIQDOSVSVSSNEGEBE  
TSKQETVADFTPKKEEEESQPAKTYTWNTKEEAKQAFKELLKEKRVPSNASWEQAMKMIINDPRY  
SALAKLSEKKQAFNAYKVQAKKKEKKKKKKK  
>HZPH  
HARFAEAECLAESHQHL SKESLAGNKPANAVLHKVLNQLEELLSDMKADVTRLPATLSRIPPIAAR  
LQMSERSILSRLASKGTEPHPTPAYPPGPYATPPGYGAAFSAAPVGALAAAGANYSQMPAGSFITA  
ATNGPPVLVKKEKEMVGALVSDGLDRKEPRAGEVICIDD  
>IKAP  
LKEGSPLEDLALLEALSEVVQNTENLKDEVYHILKVLFLFEFDEQGRELQKAFEDTLQLMERSLPE  
IWTLTYYQONSATPVLGPNSTANSIMASYQQQKTSVPVLD AELFIPPKINRRTQWKLSLLD  
>IMPD2  
DFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPMDTVTEAGMAIAMALTGGIGFIHNCNCTPEF  
QANEVRKVKKYEQGFITDPVVLSPKDRVRDVFEAKARHGFCGIPITDTGRMGSRVLGIISSRDIDF  
LKEEEHDCFLBIMTKREDLVVAPAGITLKEANEILQSRKKGKLPVFNEDDELVAI IARTDLKKNR  
DYPLASKDAKKQQLLCGAAIGTHEDDKYRLDLLAQAGVDVVLDSSQGNISIFQINMIKYIKDKYPNL  
QVIGGNVVTAAQAKNLIDAGVDALRVGMGSGSICITQEV LACGRPOATAVYKVSEYARRFGVPVIA  
DGGIQNVGHIAKALALGASTVMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAMDKHLSSQNR  
YFSEADKIKVAQGVSGAVQDKGSIHKFVPYLIAGIQHSCQDIGAKSLTQVRAMMYSSELKFEKRTS  
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>KPNA2  
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VFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVNVHGLVPFLVSVLSKADFKTQKEAVWA VTNV  
TSGGTVEQIVYL VHCGIIEPLMNL LTAKDTKIILVILDAISNIFQAAEKLGETEKL SIMIEECGGL  
DKIEALQNHENESVYKASLSLIEKYFSVEEEDQNVVPETTSEGYTFQVQDGA PGTFNF  
>KPNB1  
LAAVGLVGDLCRALQSNII PFCDEVMLLLENLGNENVHRSVKPQILSVFGDIALAIGGEFKKYLE  
VVLNTLQQASQAQVDKSDYDMVDYLNELRESCLEAYTGIVQGLKGDQENVHPDVMLVQPRVEFILLS  
FIDHIA GDEDHTDGVVACAAGLIGDLCTAFGKDV LKLVEARPMIHELLTEGRRSKTNKAKTLATWA  
TKELRKLKNQA  
>Ku70  
KTRTFNTSTGGLLLPSDTKRSQIYGSRQIILEKEETEELKRFD DPGLMLMGFKPLVLLKHHYLRP  
SLFVYPEESLVIGSSTLFSALLIKCLEKEVAALCRYTPRRNIPPYFVALVPQEEELDDQKIQVTPP  
GFQLVFLPFADDKRKMPFTEKIMATPEQVGKMKAI VEKLRFTYRSDSFENPVLQOHFRNLEALALD  
LMEPEQAVDLTLPKVEAMNKRLGSLVDEFKELVYPPDYNPEGKVTKRKH DNEGSGSKRPKVEYSEE  
ELKTHISKGT LGKFTVPMLEACRAYGLKSGLKKQELLEALTKHFQD  
>LUC7B1  
VDAVAVDAAAVSAKAEKVHELNEKIGKLLAKAEQLGAEGNVDESQKILMEVEKVRAKKKEAEEFYR  
NSMPASSFQQQKL RVCEVCSAYLGLHDNDRRLADHFGGKLHLGFIQIREKLDQLRKTVAEKQEKRN  
QDRLRRREEREREERLSRRSGSRTRDRRRRSRSDRRRRRSRSTSRERRKLSRSRSRDRHRRHRSRS  
RSHSRGHRRASRDRSAKYKFSRERASREESWESGRSERGPPDWRLESSNGKMASRRSEEKEAGEI

Figure 6 (continued)

>MAGEH1  
 ASFPRTAVSFEPLAGDMFGRKSRRRRNARAAEENRNNRKIQASEASETPMAASVVASTPEDDLG  
 PEEDPSTPEEASTTPEEASSTAQAQKPSVPRSNFQGTKKSLMSILALIFIMGNSAKEALVWVKLG  
 KLGMQPGRQHSIFGDPKKIVTEEFVRRGYLIYKPVPRSSPVEYEFFWGPRAHVESKLVKMHFVAR  
 VRNRCSDKWPCNYDWDSDDDAEVEAILNSGARGYSAP  
 >MAP11c3  
 QRRSFADRCKEVQGTIRDOEPFKIPVITERYKGEKQLPVLDTKFLVPDHNMSSELVKIIIRRLQLN  
 PTQAEFLLVNQHSMSVSVSTPIADIYEQEKEDGFLYMYASQETFGF  
 >mHAP1  
 PKEQVQSGAGDGTGSGDPAAGTPTTQPAVGPAPPEPSAEPKPAPAQGTGSGQKSGSRTKTGSGFCRSM  
 IIGDSAPWTRYVFGPGYPRATGLGTGAEGIWKTAAAYIGRRPGVSGPERAAFIRELQOEALCPN  
 PPPTKKITEDDVKVMYLLLEEKERDLNTAARIGQSLVKQNSVLMENNLETMLGSAREEILHLRK  
 QVNLRDDLLQLYSDSDDDDEDEDEDEEGEEEREGQRDQDQDHDHPYGAPKPHPKAETAHRCQP  
 LETLQOKLRLLEENDHLREASHLDNLEDEEQMLILECQEVEQFSEASQMAELSEVLVLRLEGYER  
 QQKEITQLQAEITKLQORCQSYGAQTEKLQOMLASEKGIHSESLRAGSYMODYGSRPRDRQEDGKS  
 HRQRSSMPAGSVTHYGYSVPLDALPSFPETLAEELRTSLRKFITDPAYFMERRDTHCREGRKKEQR  
 AMPPPPAX  
 >mp53  
 VTETPGPVAPAPATPWPLSSSFVPSQKTYQGNYGFLGLQSGTAKSVMTYSPPLNKLFCQLAKTC  
 FVQLWVSATPPAGSRVRAMAIYKKSQHMTEVVRRCPHHERCSDGDGLAPPQHLIRVEGNLYPEYLE  
 DRQTFRHSVVVPYEPPEAGSEYTTIHYKMCNSSCMGGMNRRPILTIITLEDSSGNLLGRDSFEVR  
 VCACPGDRDRTEENFRKKEVLCPELPPGSAKRALPTCTASPPQKKPLDGEYFTLKIIRGRKRFE  
 MFRELNEALELKDAAHATEESGDSRAHSSYLKTKKGQSTSRHKKTMVKVGPDS  
 >NAG4  
 RDRVENEAEKDLQCHAPVRLDLPPEKPLTSSSLAKQEEVEQTPLQOEALNQLMRQLQKDPSSAFFSFP  
 VTDFAIPGYSMIIKHPMDFSTMKEKIKNNYQSIIEELKDNFKLMCTNAMIYINKPETIYYKAACKLL  
 HSGMKILSQERIQSLKQSIDFMADLQKTRKQKDGTDTSQSGEDGGCWQREREDSGDAEAHAFKSPS  
 KENKKKDQKMLEDKFKSNNLREQEQLDRIVKESGGKLTURLVNSQCEFERRKPDGTTTLGLLHPV  
 DPIVGEPGYCPVRLGMTTGRLOSGVNTLQGFEDKRNKVTPVLYLNYGYPSSYAPHYDSTFANISK  
 DSDLIYSTYGEDSDLPDSDFSIHEFLATCQDYPYVMADSLLDVLTGKGHSRTLQEMEMSLPEDEGH  
 TRTLDTAKEMEITEVEPPGRIDSSTQDRILAKAVTNFGVPVEVFDSEEAEIFQKKLDETTRLLE  
 LQEAQNERLSTRPPPMICLLGPSYREMHLEQVTNNLKELAQQVTFGDIVSTYGVKAMGISIPS  
 PVMENNFDLTEDTEEPKKTDAECGPGGS  
 >NEFL  
 LSPLSSLSGLPPPPRAGEPPAATMSSFSYEPYYSTSYKRRYVETPRVHISSVRSGYSTARSAYSSY  
 SAPVSSSSLSVRRSYSSSSGSLMPSLENLDLSQVAASNDLKSIRTQEKALQDLNDRFASFIERVH  
 ELEQONKVLAEELIVLRQKHSEPSRFRALYEQEIRDLRLAAEDATNEKQALQGEREGLEETLRNLQ  
 ARYEEEVLSREDAEGRLMEARKGADEAALARAEELEKRIDSLMDEISFLKKVHEEEIAELQAQIQYA  
 QISVEMDVTKPDLAALKDIRAQYEKLAAKNMQNAEEWFKSRFTVLTESAAKNTDAVRAAKDEVSE  
 SRLLKAKTLEIEACRGMNEALEKQLQELEDKQNAISAMQDTINKLENELRTTKSEMARYLKEYQ  
 DLLNVKMALEDIEIAAYRKLLGEETRLSFTSVGSITSGYSQSSQVFGRSAYGGLQTSYLMSTRSF  
 PSYYTSHVQEEQIEVEETIEAAKABEAKDEPPSEGEAEKEEKDKEEAEEEEAAEEEEAAKEESEBA  
 KEEEGEGEGEETKEAEKEEKVEGAGEEQAAKKK  
 >p53  
 MEFPQSDPSVEPPLSQETFSDLWKLLENVLSPLPSQAMDDLMLSPDDIEQWFTEDPGPDEAPRM  
 PEAAPPVAPAPAAPTPAAPAPAPSWPLSSSVPSQKTYQGSYGFRLGFLHSGTAKSVTCTYSPALNK  
 MFCQLAKTCFVQLWVDSTPPPGRVVRAMAIYKKSQHMTEVVRRCPHHERCSDSDGLAPPQHLIRVE  
 GNLRVYLLDDNTFRHSVVVPYEPPEVGSDCCTIHYNYMCNSSCMGGMNRRPILTIITLEDSSGNL  
 LGRNSFEVRVCACPGDRDRTEENLRKKGEPHLELPPGSTKRALPNNTSSSPQPKKKPLDGEYFTL  
 QIRGRERFEMFRELEALELKDAAQAGKEPGGSRAHSHLKSCKKGQSTSRHKKLMFKTEGPDS

Figure 6 (continued)



>PFN2  
 APRRPRCSAKGSKMAGWQSYVDNLMCDGCCQEAIVGYCDAKYVWAATAGGVFQSITPIEIDMIVG  
 KDREGFFTNGTLTGAKKCSVIRDSLYVDGDCMTDIRTKSQGGEPTYNVAVGRAGRVLVFVMGKEGV  
 HGGGLNKKAYSMAYLRDSGF

>PIAsy (bait)  
 LVEAKNMVMSFRVSDLOMLLGFVGRSKSGLKHELVTALQVQFDCSPFLFKKIKELYETRYAKKN  
 SEPAPQPHRPLDPLTMHSTYDRAGAVPRTPLAGPNIDYPVLYGKYLNGLGRLPAKTLKPEVRLVKL  
 PFFNMLDELLKPTLVPQNNKIQESPCIFALTTPRQVELIRNSRELQPGVKAVQVVLRICTSDTSC  
 PQEDQYPPNIAVKVNHSYCSVPGYYPSPNKPGEVPEKRPCRPINLTHLMYLSSATNRITVTWGNYGKS  
 YSVALYLVRQLTSSELLQRLKTIGVKHPELCKALVKEKRLRDPDSEIATTGVRVSLICPLVKMRLS  
 VPCRAETCAHLQCFDAVFYLMNEKKPTWMCVPCKPAPYDQLIIDGLLSKILSECEDADEIEYLV  
 DGSWCPIRAEKERSCSPOGAILVLGSPDANGLLPAPSVNGSGALGSTGGGGPVGSMENKPGADV  
 DLTLDSSSSSEDEEEEEDEDEEGPRPKRRCPPQKGLVPAC

>PIAsy (prey)  
 LVEAKNMVMSFRVSDLOMLLGFVGRSKSGLKHELVTALQVQFDCSPFLFKKIKELYETRYAKKN  
 SEPAPQPHRPLDPLTMHSTYDRAGAVPRTPLAGPNIDYPVLYGKYLNGLGRLPAKTLKPEVRLVKL  
 PFFNMLDELLKPTLVPQNNKIQESPCIFALTTPRQVELIRNSRELQPGVKAVQVVLRICTSDTSC  
 PQEDQYPPNIAVKVNHSYCSVPGYYPSPNKPGEVPEKRPCRPINLTHLMYLSSATNRITVTWGNYGKS  
 YSVALYLVRQLTSSELLQRLKTIGVKHPELCKALVKEKRLRDPDSEIATTGVRVSLICPLVKMRLS  
 VPCRAETCAHLQCFDAVFYLMNEKKPTWMCVPCKPAPYDQLIIDGLLSKILSECEDADEIEYLV  
 DGSWCPIRAEKERSCSPOGAILVLGSPDANGLLPAPSVNGSGALGSTGGGGPVGSMENKPGADV  
 DLTLDSSSSSEDEEEEEDEDEEGPRPKRRCPPQKGLVPAC

>PLIP  
 GEIIEGCRPLVLRNQNDEWPLAEILSVKDISGRKLFYVHYIDFNKRLDEWVTHERLDLKKIQF  
 PKBEAKTPTKNGLPGRPGSPEREVKRVEVVPATFPVSETAPASVFPQNGAARRAVAAQPGKRK  
 KSNCLGTDSDSDGIPSAPRMTGSLVSDRSHDDIVTRMKNIECIELGRHRLKPYFSPYQBEL  
 TTLPLVLYLCEFLKYGRSLKCLQRHLTKCDLRHPPGNEIYRKGTISFIEDGRKNKSYSONLCLLA  
 KCFLDHKTLYYDTPFLFYVMTEYDCKGFHIVGYFSKEKESTEDYNVACILTLPPYQRRGYKLLI  
 EFSYELSKVEGKTGTPEKPLSDLGSLSYRSYWSQTILEILMGLKSESGERPQITINEISEITSIKK  
 EDVISTLQYLNILINYYKGQYILTLSEDIVDGERAMLKRLLRIDSKCLHFTPKDWSKRGKW

>PTN  
 LSQRQDQVPRLPVQKSRQESPRAEENPKWREGKKETSESSVQKAGRAAAQAGAAASRVPGLSGSN  
 LAPCNKGRLSAREDVSNKMQAQQYQQORRKFAAFLAFIFILAAVDTAEGKKEKPEKKVKKSDC  
 GEWQWSVCVPTSGDCGLGTREGTRTGAECKQTMKTQRCKIPCNWKKQFGAECKYQFQAWGECDLNT  
 ALKTRTGSLKRALHNAECQKTVTISKPCGKLTKPKPQAESKKKKKEGKKQEKMLD

>PTPK  
 SNYINAALMDSYRQPAAFIVTQYPLPNTVKDFWRLVYDYGCTSIIVMLNEVDLSQGCPQYWPEEGML  
 RYGPIQVECMSCSMDCDVINRIFRICNLTRPQEGYLMVQQFQYLGWASHREVPGSKRSFLKLIQV  
 EKWQEECEEGERTIHCLNGGGRSGMFCAGIVVEMVKRONVVDVFHAVKTLRNSKPNMVEAPEQ  
 YRFCYDVALEYLESS

>SETBD1  
 KASTSGLGIKDEGDIKQAKKEDTDDRNMSSVVTSSRNYGYNPSPVKPEGLRRPPSKTSMHQSRRL  
 MASAQSNPDDVLTLSSSTESEGESGTSRKPTAGQTSATAVDSDDIQTISSGSEGDDFEDKKNMTGP  
 MKRQVAVKSTRGFALKSTHGIAIKSTNMAVSKGESAPVRKNTRQFYDGEESCYIIDAKLEGNLGR  
 YLNHSCSPNLFVQNVFVDTHDLRFPWVAFFASKRIRAGTELTDWYNYEVGSVEGKELLCCCGAIEC  
 RGRLI

Figure 6 (continued)

>SH3 GL3  
VAGLKKQFHKASQLFSEKISGAEGTKLDDEFLDMERKIDVTNKVVAHILSKTTEYLQPNPAYRAKL  
GMLNTVSKIRGQVKITGYPQTEGLLGDCMLKYGKELGEDSTFGNALIEVGESMKLMAEVKIDSLDIN  
VKQTFIDFLQLLQDKLKEIGHHLKKLEGRRLDYDYKKKRVGKI PDEEVRQAVEKFEESEKELAERS  
MFNFLENDVEQVSQALVFIEAALDYHROSTEILOELQSKLOMRI SAASSVPRREYKPRFVKRSSSE  
~~LNCVSTTSVAKTTCGNIPMDQRCRGLYDDEPDNQCENLCKPKECDITTEPNQEDENWYEMENECES~~  
FFPINYVEVIVPLPQ  
>SUMO-2  
RPRAQLRRESGGAESVTRPLRAASPAFPRAARAAMSEEKPKEGVKTEENDHINLKVAGQDGSVVQF  
KIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPINETDTPAQLEMEDEDITIDVFQQQTGGVPSS  
LAGHSF  
>SUMO-3  
PSSTAAASFFCRSWCCLCARLVRTWYLFCEAAAEEITPALAMADEKPKEGVKTEENDHINLKVAGQD  
GSVVQFKIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPINETDTPAQLEMEDEDITIDVFQQQTG  
GVY  
>TAL1  
SSPVKQRMESALDQLKQFTTVVADTGDFHAIDEYKPDATTNP SLILAAAQMPAYQELVEEAIAAY  
GRKLGGSQEDQIKNAIDKLFVLFGAEILKKIPGRVSTEV DARLSFDKAMVARARRLIELYKEAGI  
SKDRILIKLSSTWEGIQAGKELEEQHGHIHNM TLLFSFAQAVACAEAGVTLISP FVGRILDWHVAN  
TDDKSYEPLDPGVKSVTKIYNYYKKFSYKTI VMGASFRNTGEIKALAGCDFLTISP KLLGELLQD  
NAKLVPVLSAKAAQASDLEKIHLEKSFRWLHNE DQMAVEKLSDGIRKFAADAVKLERMLTERMFN  
AENGK  
>TCPG  
QTDIEITREEDFTRILQMEBEYIQQLCEDIIQLKPDVVITEKGISDLAQHYLMRANITAIRRVKRT  
DNNRIARACGARIVS RPEBLREDDVGTGAGLLEIKKIGDEYFTFITDCKDPKACTILLRGASKEIL  
SEVERNLODAMQVCRNVLLDPQLVPGGGASEMAVAHALTEKSKAMTGVEQWFPYRAVAQALEVIPRT  
LIQNCGASTIRLLTSLRAKHTQENCETWGVNGETGTLVDMKELGIWEPLAVKLQTYKTAVETAVLL  
LRIDDIVSGHKKKGDDQSRQGGAPDAGQE  
>VIM  
SPRQRRSRAPTTHTRALVRLFSQSQSA PPPPPRPSPPSAAMSTRSVSSSSYRRMFGGPGTASRPS  
SSRSYVTTSTRTYSLSALRPSRSLSYASSPGGVYATRBSAVRLRSSVPGVRLLODSVDFSLADA  
INTEFKNTRINEKVELQELNDRFANYIDKVRFLQONKILLAELEQLKGQKSR LGDLYEEMREL  
RRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEEMLOREEAENTLOSFRQVDNDSLARLDLERK  
VESLQEEIAFLKKLHEEEIQELOAQIQEQHVQIDVDVSKPDLTAALRDVRQOYESVAAKNLQRAEE  
WYKSKFADLSEAANRNNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMRMEENFAVEA  
ANYQDTIGRLQDEIQNMKEEMARHLREYQDLLNVKMALDIEIATYRKLLGEESRISLPLPNFSSIL  
NLRETNLDSLPLVDTHSKRTLLIKTVETRDGQVINETSQHDDLE  
>VIMc  
QEEMLOREEAENTLOSFRQVDNDSLARLDLERKVESLQEEIAFLKKLHEEEIQELOAQIQEQHVQ  
IDVDVSKPDLTAALRDVRQOYESVAAKNLQRAEEWYKSKFADLSEAANRNNDALRQAKQESTEYRR  
QVQSLTCEVDALKGTNESLERQMRMEENFAVEAANYQDTIGRLQDEIQNMKEEMARHLREYQDLL  
NVKMALDIEIATYRKLLGEESRISLPLPNFSSILNLRETNLDSLPLVDTHSKRTLLIKTVETRDGQ  
VINETSQHDDLE

Figure 6 (continued)

&gt;ZHX1

EQTINDLTFDGSFVKEENAEQAESTEVS SSGISISKTPIMKMMKNKVENKRIAVHHNSVEDVPEEK  
ENEIKPDREEIVENPSSSASESNTSTSI VNRHPSTASTVVTPAAVLPGLAQVITAVSAQQNSNLI  
PKVLIPVNSIPTYNAA LDNNPLLLNTYNKFPYPTMSEITVLSAQAKYTEEQIKIWFS AQRLKHGVS  
WTPEEVEEARRKQFNQTVHTVPQTITVIPTHTSTG SNGLP SILQTCQIVGQPGLVLTQVAGTNTLP  
VTAPIALTVAGVPSQNNIOKSQVPAAQPTAETKPATAAVPTSQSVKHETALVNPDSFGIRAKKTKE  
QLAELKVSYLKNQFPHDSEIIRLMKITGLTKGEIKKWFSDTRYNQ RNSKSNQCLHLNNDSSTTIII  
DSSDETTE SPTVGT AQPKQSWNPFPDFT P QKFKEKTAEQLRVLQASFLNSSVL TDEELNRLRAQTK  
LTRREIDAWFTEKKKSKALKEEKMEIDESNAGSSKEEAGETSPADESCAPKSGSTGKICKKTPEQL  
HMLKSAFVRTQWPSPEEYDKLAKESGLARTDIVSWFGDTRYAWKNGNLKWYYYYQSANSSSMNGLS  
SLRKRGGRPKGRGRGRPRGRPRGSKRINNWD RGP SLIKFKTG TAILKDYYLKHKFLNEQDLDLV  
NKSHMGYEQVREWF AERQRRSELGIELFEENE EDEVIDDQE EDEEETDDSDTWEP PRHVK RKL SK  
SDD

&gt;ZNF33B

CYECGKTFCLKSDLTIHQRTHTGEKPFACPECGKFFSHKSTLSQH YRTHTGEKPYECHECGKIFYN  
KSYLTKNRTHTGEKPYECNECGKTFCKQSQLTQHQR IHIGEKPYECNECGKAFCHKSA L I VHQR T  
HTQEKPYKCN ECGKBFCVKSG LILHERKHTGEKPYECNECGKSFSHKSSLTVHYRAHTGEKSCQCN  
ECGKIFYRKSDLAKHQRSHTGEKPYECNTCRKTF SQKSNLIVHQRT HIGEKPYE

Figure 6 (continued)

>ALEX2  
GCCGAATCAGTAGTTGGGGCTGCAATGGCTTCTGCAATAGCACACCTCCCGGGGTGACAGAGGCC  
CTTGGGGCTGCAGAAGCCCCTGCAATGGCAGGGGCTCCCAAAGTGGCAGAAGCTCCAGAGAAGCG  
GAGACTTCCAGGGCAGCGGTGCCTCCTGGGACAGTGGTGCCTACCGAAGCGGCAGCACCCA CTGAG  
GTGACCGAGGGTCTGCGGGTAGCAGCACCTACCAAGGTAGCTGAAGCTCCCGGGGTGGCATCGCCT  
ACCGAGGCAGCTGAGGCTCCTGTGCCCGCAACGCCTACTGGGGCTGCAGCACCTACTGGGGCTGCA  
GAGTCTCCTGGAATTTCTGGTTCCCTTAGAACAGCGGTGGTTCTGGAACATCAGCTGCCAAGAAA  
GCAACCCCTGGGGCTCACACTGGGGCTATACCGAAAGCCACATCAGCGACTGGAGCGGTACCCAAA  
GGTGGAGGCAAGGGTGTAAACAGGTCCCGGAATGGGGGCAAGGGCAAGGGAAGAAAAGCAAGTT  
GAAGTAGACGAACCTGGGGATGGGCTTCCGTCTGGAGATGGGGCTGCAGCAGCTGCTGCAGCCTCT  
GCTAATGGCGGACAGGCTTTCTGGCAGAGGTCCCTGATTCTGAGGAAGGGGAGTCCGGGTGGACT  
GACACAGAGTCAGATTCAGACTCTGAGCCCCGAGACCCAGCGCAGAGGGAGGGGAAGAAGACCCGTT  
GCCATGCAGAAGCGCCCCCTTTCTTATGAAATTGATGAGATTCTGGGTGTCCGCGATCTCAGGAAG  
GTCCTTGCCCTTGCTTCAGAAATCTGATGATCCTTTTCATCCAACAGGTAGCTTTGCTCACTCTGAGC  
AACATGCCAATTATTTCATGCAATCAAGAGACAATCCGCAAATTGGGAGGCCCTCCCAATTATTGCA  
AACATGATCAACAAAACCTGATCCACACATTAAGGAAAAAGCCTTAATGGCCATGAATAACCTGAGT  
GAGAATTATGAAAATCAGGGCCGGCTTCAGGTGTACATGAATAAAGTGATGGATGATATCATGGCC  
TCTAACCTGAACTCAGCAGTTCAAGTAGTTGGACTAAAATTTCTAACAAACATGACTATTACTAAT  
GACTACCAACACCTGCTTGTCAATTCCATTGCAAACCTTTTCCGTTTGCTATCTCAGGGAGGTGGA  
AAAATCAAGGTTGAGATTTTGAATACTTTTTCGAATTTTGCTGAAAATCCAGATATGTTGAAGAAA  
CTTCTCAGTACCCAAGTGCCAGCATCATTTAGTTCCCTCTATAATTCTTACGTGGAATCAGAAATC  
CTTATTAAATGCCCTTACTCTATTTGAGATTATCTATGACAATCTCAGAGCAGAAGTGTTAACTAT  
AGAGAATTCAATAAAGGTTCCCTTTTACTTATGCACTACATCTGCAGTGTGTGTTAAGAAAATT  
AGAGCCTTAGCAATCACCATGACCTCTTAGTGAAAGTGAAAGTTATAAACTAGTGAACAAATTC  
>APP1  
GAGGAAGAGGAGGAATCCTTCCCACAGCCAGTAGATGATTACTTTCGTGGAGCCTCCGCAGGCTGAA  
GAGGAAGAGGAACGGTCCCACCCCAAGCTCCCATACACTTGCAGTGGTGGGCAAGTCACTCCC  
ACCCCGAGGCCACAGACGGTGTGGATATTTACTTTGGCATGCCTGGGGAATCAGTGAGCAGGAG  
GGGTTCTTGAGGGCCAAGATGGACCTGGAGGAGCGTAGGATGCGCCAGATTAATGAGGTGATGCGT  
GAATGGGCCATGGCAGACAACCAAGTCCAAGAACCTGCCTAAAGCCGACAGACAGGCCCTGAATGAG  
CACTTCCAGTCCATTCTGACAGACTCTGGAGGAGCAGGTGTCTGGTGAGCGACAGCGCCTGGTGAA  
ACCCACGCCACCCGCGTCATCGCCCTTATCAACGACAGCGCCGGGCTGCCTTGAGGGGCTTCCTG  
GCAGCCCTGCAGGCAGATCCGCCTCAGGCGGAGCGTGTCTGTTGGCCCTGCGGCGCTACCTGCGT  
GCGGAGCAGAAGGAACAGAGGCACACGCTGCGCCACTACCAGCATGTGGCCGCCGTGGATCCCGAG  
AAGGCACAGCAGATGCGCTTCCAGGTGCATACCCACCTTCAAGTGATTGAGGAGAGGGTGAATCAG  
AGCCTGGGCCTGCTTGACCAGAACCCCCACCTGGCTCAGGAGCTGCGGCCCAAAATCCAGGAACCTC  
CTCCACTCTGAACACCTGGGTCCCAAGTGAATTGGAAGCCCTGCCCCCTGGGGCAGCAGCGAGGAC  
AAGGGTGGGCTGCAGCCTCCAGATTCCAAGGATGACACCCCATGACCCTTCCAAAAGGGTCCACA  
GAACAAGATGCTGCATCCCTGAGAAAGAGAAGATGAACCCGCTGGAACAGTATGAGCGAAAGGTG  
AATGCGTCTGTTCCAGGGGTTTTCCCTTTTCACTCATCGGAGATTGAGAGGGATGAGCTGGCACCAG  
CTGGGACAGGGGTGTCCCGTGAGGCTGTGTGCGGTCTGC

Figure 6 (continued)

&gt;BAIP1

CGGCCGCGGACGAAGATGGCGACCGCCATGTACTTGGAGCACTATCTGGACAGTATCGAGAACCTT  
CCCTGCGAACTTCAGAGGAACCTTCAGCTGATGCGAGAGCTGGACCAGAGGACGGAAGATAAGAAA  
GCAGAGATTGACATCCTGGCTGCAGAGTACATCTCCACGGTGAAGACGCTGTCTCCAGACCAGCGC  
GTGGAGCGCCTGCAGAAGATCCAGAACGCCTACAGCAAGTGCAAGGAATACAGTGACGACAAAGTG  
CAGCTGGCCATGCAGACCTACGAGATGGTGGATAAACAACATTCGAAGGCTTGATGCAGACCTGGCG  
CGCTTTGAAGCAGATCTGAAGGACAAGATGGAGGGCAGCGATTTTGAAAGCTCCGGAGGGCGAGGG  
TTAAAAAAGGCCGGGGTCAGAAAGAAAAAGAGGGTCCCGGGGCGAGGCAGGAGGACATCAGAG  
GAAGACACACCAAAGAAAAAGAAGCACAAAGGAGGGTCTGAGTTCACTGACACCATECTGTCCGTG  
CACCCCTCTGATGTGCTGGACATGCCCGTGGACCCAAACGAACCCACGTACTGCCTGTGCCACCAG  
GTCTCCTATGGGGAGATGATTGGCTGTGACAATCCAGACTGTCCAATTGAGTGGTTTCACTTTGCC  
TGCGTGGACCTTACCACGAAACCCAAAGGAAAATGG

&gt;BAIP2

AGCCAGCAGGCCAGCGTGACCATGCACGATGTGGACGCCGAGTCCCTTCGAGGTGTTGGTCGACTAC  
TGCTACACGGGTCTGTGTCTCTCAGTGAGGCCAATGTGCAGCGCCTGTACGCGGCCCTCCGACATG  
CTACAGCTGGAATATGTGCGGGAAGCCTGTGCCTCCTTCTTAGCCCGACGTCTTGACCTGACCAAC  
TGCACCGCCATCCTCAAGTTTGACAGCGCCTTCGACCATCACAAGCTTCGATCTCAGGCCCAGTCC  
TACATAGCTCACAACCTCAAGCAGCTCAGCCGAATGGGTTCAATTTCGGGAGGAGACTCTAGCAGAT  
CTAAACCTGGCCAGCTGCTGGCTGTCTACGCCCTGGATAGTCTGGACATAGAGAGTGAGCGGACT  
GTATGCCATGTAGCTGTGCAGTGGCTGGAGGCTGCTGCCAAAGAGCGGGTCCCAGTGCTGCAGAA  
GTCTTCAAGTGCGTGGCTGGATGCACCTTCACTGAAGAAGATCAGGACTACTTAGAAGGGCTGCTG  
ACCAAGCCCATCGTGAAGAAGTACTGCCTGGACGTTATTGAAGGGGCCCTGCAGATGCGCTATGGT  
GACCTGTGTACAAGTCTCTGGTGGCAGTGCCAAACAGCAGCAGCAGTACGACGACCAACTCT  
CTTGATCTGTCAGCAGAAAATCCACCCCAGAGACTGGGTATGTGTGCCAAGGAGATGGTGATCTTC  
TTTGGACATCCTAGAGATCCCTTTCTCTGCTATGACCCTTACTCGGGGGACATTTACACAATGCCA  
TCCCCTTTGACCAGCTTTGCTCACACTAAGACTGTCACTCCTCAGCTGTCTGTGTGTCCCAGAC  
CATGACATCTATCTAGCTGCTCAGCCCAGGAAAGACCTCTGGGTGTATAAACACAGCTCAGAATAGT  
TGGCAGCAACTTGACAGATCGCTTGCTGTGTCTGAGGGCATGGATGTGGCATACTCAATGGCTAC  
ATCTACATTTTGGGGGACGAGACCCCTATTACTGGAGTTAAGTTGAAGGAAGTGAATGCTACAGT  
GTTTCAGAGAAACAGTGGGCATTGGTGGCTCCTGTCCCTCATTCCCTTCTATTCTTTGAACTCATA  
ATGTGGCTGAACGTGCTTCTCTTAAACGTAGTGACTTTCAGGAAGCATGTGTCTTCAATGATGAA  
ATCTATTGTATCTGTGACATCCAGTCATGAAGGTCTACAACCCAGCTAGGGGAGAATGGAGGGCG  
ATTAGTAATATTCTTTGGATTGAGAGCCCAACTACCAGATTGTCAATCATGACCAAAAAGTTG  
CTTCTCATCACTTCTACAACCCCAATGGAAAAAGAACCGAGTGACAGTGTATGAGTATGATACT  
AGGGAAGATCAGTGGATTAATATAGGTACCATGTTAGGCCTTTTGACGTTTGACTCTGGCTTTATT  
TGCCTTTGTGCTCGTGTTTATCCTTCCCTGCTTGAACCTGGTCAGAGTTTTATTACTGAGGAAGAT  
GATGCACGGAGTGAGTCTAGTACTGAATGGGACTTAGATGGATTGAGTGAAGTCTGAGTCA  
GGAAGTTCAAGTTCTTTTTTCAGATGATGAAGTCTGGGTGCAAGTAGCACCTCAGCGAAATGCACAG  
GATCAGCAGGGTTCTTTG

Figure 6 (continued)

&gt;BAIP3

GGACACAATGCCCCAGAAAAGTAACAGCCGTCAATTTATGCTAGAAAAGGAAGTGTCTCCAGAGC  
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CAAGAACCAGATCCATAATGAGATGGCATCAACATCAGATAAAGGTGCCCAAGGAAGAAATGAC  
AAGAAAGATTCTCAAGGAAGAAGTAATAAGGCATTACATCTGAAGAGTGTGCTGAATTTAAAAAG  
ATATTTGGCCTTACTAAGGATTTTGAGAGTGTGCCTTACTCGAATTCCTGACCATTGGACCTGTGGA  
GAAGGTTTCGATTCTTTTAGCAGTTTGGTAAGAGTGTACTTACAAGAGACAGAGTTTATGGTG  
AAGGAAGGAGAGAGAAAACAGCAGAATTTTGATAAGAAAAGAAAAGCAAAAATAATAAGAGATG  
GATCACATAAAGAAGAGAAAAACAGAGAATGCTTATAACGCAATCATAAATGGGGAAGCTAATGTC  
ACCGGTTCCCAACTCCTAAGCAGTATTTTACCAACTTCAGATGTGTCAACAACATAACATTCACCG  
AGTCACAGCAAAACAGACAAGAAAAGAGAACTGAGATGGAATACCTATACCCATGAGAAGCAAGAG  
AAAGGCCACTTTGAATTCAAATGCAGCTTATGAACAAAGTCATTTCTTCAATAAAAATTATACCGAA  
GATATTTTCCCGAGTGACACCACCGGAGTTAGAAGAAACCATTTCGAGATGAAAAATAAGAGACTT  
AAGCAGGTGCTGAGAGAGAAAGAAGCAGCTCTTGAAGAAATGCGTAAGAAGATGCACCAAAAAA

&gt;BARD1

TTGGCCGGTTTCGAGTGGCTGACCTGCAGCTTCCCTGTGGTTTCCCGAGGCCTCCTTGCTTCCCGC  
TCTCCGAGGAGCCTTTTCATCCGAAGGCGGGACGATGCCGGATAATCGGCAGCCGAGGAACCGGCAG  
CCGAGGATCCGCTCCGGGAACGAGCCTCGTTCCCGCTCCGCCATGGAACCGGATGGTCGCGGTGCC  
TGGGCCCACAGTCGCGCCGCGCTCGACCGCCTGGAGAAGCTGCTGCGCTGCTCGCGTGTACTAAC  
ATTCTGAGAGAGCCTGTGTGTTTAGGAGGATGTGAGCACATCTTCTGTAGTAATTTGTAAAGTGAC  
TGCAATTGGAAGTGGATGTCCAGTGTGTACACCCCGCCTGGATACAAGACTTGAAGATAAATAGA  
CAACTGGAACAGCATGATTCAACTTTGTAGTAAGCTTCGAAATTTGCTACATGACAATGAGCCGTCA  
GATTTGAAAGAAGATAAACCTAGGAAAAGTTTGTTAATGATGCAGGAAACAAGAAGATTCAATT  
AAAATGTGGTTTAGCCCTCGAAGTAAGAAAGTCAGATATGTTGTGAGTAAAGCTTCAGTGCAAAAC  
CAGCCTGCAATAAAAAAGATGCAAGTGTCTGACAGACTCATATGAATTTGTTTTCCCAAGTCCT  
CCTGCAGATGTTTCTGAGAGGGCTAAAAAGGCTTCTGCAAGATCTGGAAGAAAGCAAAAAAGAAA  
ACTTTAGTGAATCAACCAAAAATGGAATTTAGAGGCAGAAAAGAAGATGGTGAATTTGACTCC  
AAAGAGGAATCTAAGCAAAAGCTGGTATCCTTCTGTAGCCAAACATCTGTTATCTCCAGTCTCAG  
ATAAATGGTGAATAGACTTACTAGCAAGTGGCTCCTTGACAGAATCTGAATGTTTTGGAAGTTTA  
ACTGAAGTCTCTTTACCATTTGGCTGAGCAAAATAGAGTCTCCAGACACTAAGAGCAGGAATGAAGTA  
GTGACTCCTGAGAAGGTCTGCAAAAATTATCTTACATCTAAGAAATCTTTGCCATTAGAAAATAAT  
GGAACCGTGGCCATCACAATAGACTTTCCAGTCCCATTCTAAGAGATGTAGAACCAGCATTTCTG  
AGCACCAGTGGAGATTTTGTAAAGCAACGGTGCCCTCAGAAAATATACCATTGCCTGAATGTTCT  
TCACCACCTTCATGCAACGTAAGTTGGTGGTACATCAGGGAGCAAAACAGTAACATGTCCGATG  
AATTCATTAGTCTTTCACCAGGTACACCACCTTCTACAT

&gt;CA150

CAACAATTCATTCCTGGGCCCTGAAGATACTTGTGTTGGCCCTGCTGTCTATTTAGCCAAGCACCC  
ACAACACAAGATCAGACCCCAAGTTCTGCTGTTTCAGTTGCCACGCCTACAGTTAGTGTTCAACT  
CCTGCTCCTACAGCCACACCTGTGCAAACCGTTCCCCAGCCGCACCCCTCAGACGTTACCTCCTGCT  
GTTCTCATTACAGTACCTCAGCCAACAACAGCAATACCTGCTTTTCCACCAGTAATGGTACCTCCG  
TTTCGTGTTCCCTTCTGTCATGCCAATTCACCTTCAGGTGTATTGCCAGGAATGGCCCCCTCCT  
ATCGTACCCATGATACATCCCAGGTTGCTATTGCAGCTTCACCTGCTACCTTAGCTGGAGCAACA  
GCAGTTTCTGAATGGACTGAATATAAAACAGCAGATGGGAAGACATATTATTATAATAATAGAACA  
TTAGAATCAACCTGGGAAAAACCCCAAGAACTAAAGGAAAAAGAAAGTTAGAAGAGAAGATTAA  
GAGCCAATTAAAGAACCTCTGAAGAGCCTCTGCCAATGGAGACGGAGGAGGAGGATCCTAAAGAA  
GAGCCTATAAAGGAGATAAAGGAGAGGCCAAAGAAGAGAGATGACTGAAGAAGAAAAGGCTGCC  
CAGAAGGCCAAAGCCAGTTGCTACTGCTCCTATTCTGTTGTTCTATGTTGGGACCGACCTGATGATCTG  
GATGAGCGGGTCTTCTTTTATAATCCCACTCGTCTTCTATGTGGGACCGACCTGATGATCTG  
ATTGGCAGGGCAGATGTTGACAAAATTATTCAGGAGCCCCCTCATAAAAAGGAATGGAGGAATTG  
AAGAACTAAGGCACCCAACTCCGACAATGCTGTGATCCAAAAGTGGCAATTTCTATGAGTGCA  
ATTAAGAGGAACAAGAATTAATGAAGAAATTAATGAAGATGAGCCTGTAAAGCAAAAAACGG  
AAG

Figure 6 (continued)

&gt;CGI-125

TTCCGACGCGTCCGCGCGGAACTTCGCCCGCGTCTCTGGGCTTTTGCTCTGTTCAGGCTGGTGGCGTT  
TTGGTGTCTTCGTTTGTTATGGCCGCTGCTGTGCTATGGAGACAGATGATGCTGGAAATCGACTT  
CGGTTTCAGTTGGAGTTGGAATTTGTGCAATGTTTAGCCAACCCAAATTACCTTAATTTTC TTGCC  
CAAAGAGGTTACTTCAAAGACAAAGCTTTTGTTAATTATCTTAAATACTTGCTTTACTGGAAGAC  
CCAGAATATGCCAAGTATCTAAAGTACCGCTCACTGTTTACAGATGCTTAGAGCTGCTGCAATATCA  
CACTTCCGAAAGGAGCTGGTGAATGCTCAGTGTGCGAAATTTATGATGAACAGCAGATTCTACAT  
TGGCAGCACTATTCCCGGAAGCGGATGCGCCTTCAGCAAGCCTTGGCAGAGCAGCAACAGCAAAAT  
AACACATCGGGAAA

&gt;CGI-74

GTAGAGAAAGCACGGGCAAAGAAAAGAGAAGCAGAGGAAGTTTATCGGAATTCTATGCCAGCTTCC  
AGTTTTTCAGCAGCAGAACTTCGAGTCTGTGAAGTCTGCTCTGCCTATTTAGGACTTCATGATAAT  
GACAGACGACTGGCTGATCATTTTGGGGGTAAACTGCACCTGGGATTTATTGAAATAAGAGAGAAG  
CTTGAAGAATTAAAGAGAGTCGTAGCTGAGAAGCAGGAGAAAAGAAACCAGGAACGGCTGAAACGA  
AGAGAAGAGAGAGAGAGAAGAAAGGGAGAAGCTGAGGAGGTCCCGATCACACAGCAAGAAATCCA  
AAAAGG

&gt;CLH-17

ATGGCCCAGATTCTGCCAATTCGTTTTCAGGAGCATCTCCAGCTCCAGAACCTGGGTATCAACCCA  
GCAAACATTGGCTTCAGTACCTGACTATGGAGTCTGACAAATTCATCTGCATTAGAGAAAAAGTA  
GGAGAGCAGGCCCAGGTGGTAAATCATTGATATGAATGACCCAAGTAATCCAATTCGAAGACCAATT  
TCAGCAGACAGCGCCATCATGAATCCAGCTAGCAAAGTAATTGCACTGAAAGCTGGGAAAACTCTT  
CAGATTTTTTAACATTGAAATGAAAAGTAAATGAAGGCTCATACCATGACTGATGATGTCACCTTT  
TGAAATGGATCTCTTTGAATACGGTTGCTCTTGTGTACGGATAATGCAGTTTATCACTGGAGTATG  
GAAGGAGAGTCTCAGCCAGTGAATATGTTGATCGCCATTCTAGCCTTGACAGGGTGCCAGATTATC  
AATTACCGTACAGATGCAAAACAAAAGTGGTTACTTCTGACTGGTATATCTGCACAGCAAAATCGT  
GTGGTGGGAGCTATGCAGCTATATTCTGTAGATAGGAAAGTGTCTCAGCCCATTTGAAGGACATGCA  
GCTAGCTTTGCACAGTTTAAAGATGGAAGGAAATGCAGAAGAATCAACGTTATTTTTGTTTGCAGTT  
CGGGGCCAAGCTGGAGGGAAGTTACATATTATTGAAGTTGGCACACCACCTACAGGGAACCAGCCC  
TTTCCAAAGAAGGCAGTGGATGCTCTTCTTCCCTCCAGAAGCACAAATGATTTTCTCTGTGCAATG  
CAGATCAGTGAAGGAGCATGATGTGGTGTCTTGATAACCAAGTATGGTTATATCCACCTCTATGAT  
CTTGAGACT

&gt;CLK1

GACGCGTGGGTTCTGGAACATCTGAATACAACAGACCCCAACAGTACTTTCCGCTGTGTCCAGATG  
TTGGAATGGTTTGAGCATCATGGTCACATTTGCATTGTTTTTGAAGTATTGGGACTTAGTACTTAC  
GACTTCATTAAAGAAAATGGTTTTCTACCATTTTCCAGCTGGATCATATCAGAAAGATGGCATATCAG  
ATATGCAAGTCTGTGAATTTTTTGCACAGTAATAAGTTGACTCACACAGACTTAAAGCCTGAAAAC  
ATCTTATTTGTGCAGTCTGACTACACAGAGGCGTATAATCCCAAATAAAACGTGATGAACGCACC  
TTAATAAATCCAGATATTAAAGTTGTAGACTTTGGTAGTGCACATATGATGACGAACATCAGAT  
ACATTGGTATCTACAAGACATTATAGAGCACCTGAAGTTATTTTAGCCCTAGGGTGGTCCCAACCA  
TGTGATGTCTGGAGCATAGGATGCATTCTTATTGAATACTATCTTGGGTTTACCGTATTTCCAACA  
CACGATAGTAAGGAGCATTTAGCAATGATGGAAGGATTCTTGGACCTCTACCAAAACATATGATA  
CAGAAAACCAGGAAACGTAAATATTTTACCACGATCGATTAGACTGGGATGAACACAGTTCTGCC  
GGCAGATATGTTTCAAGACGCTGTAAACCTCTGAAGGAATTTATGCTTTCTCAAGATGTTGAACAT  
GAGCGTCTCTTTGACCTCATTACAGAAAATGTTGGAGTATGATCCAGCCAAAAGAATTACTCTCAGA  
GAAGCCTTAAAGCATCCTTTCTTTGACCTTCTGAAGAAAAGTATA

Figure 6 (continued)



&gt;DRP-1

AAGGACAACCTTTACCCTGATCCCCGAGGGTGTCAACGGGATAGAGGAGCGGATGACCGTCTGTCTGG  
GACAAGGCGGTGGCTACTGGCAAAATGGATGAGAACCAGTTTGTGCTGTCAACCAGCACCAATGCA  
GCCAAGATCTTTAACCTGTACCCAAGGAAAGGGCGGATTGCCGTGGGCTCGGATGCCGACGTGGTC  
ATCTTGGGACCCCGACAAGTTGAAGACCATAACAGCCAAAAGTCACAAGTCGGCGGTGGAGTACAAC  
ATCTTCGAGGGTATGGAGTGCCACGGCTCCCCACTAGTGGTCAATCAGCCAGGGCAAGATCGTCTTT  
~~GAGGAGGCAACATTAACCTGATCAAGGGCATGGGCCGCTTCATTCCGCGGAAGGCGTTCCCGGAG~~  
CACCTGTACCAGCGCGTCAAAATCAGGAATAAGGTTTGTGGATTGCAAGGGGTTTCCAGGGGCATG  
TATGACGGTCTCTGTGTACGAGGTACCAGCTACACCCAAATATGCAACTCCCGCTCCTTCAGCCAAA  
TCTTCGCCCTTCTAAACACCAGCCCCACCCATCAGAAACCTCCACCAGTCCAACCTCAGCTTATCA  
GGTGCCAGATAGATGACAACAATCCAGGCGCACCGGCCACCGCATCGTGGCGCCCCCTGGTGGC  
CGCTCCAACATCACCAGCCTCGGT

&gt;EF1A

ATGCAACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAATGTCAAGAATGTG  
TCTGTCAAGGATGTTCTGCTGGCAACGTTTCTGGTGACAGCAAAAATGACCCACCAATGGAAGCA  
GCTGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATGCCCT  
GTATTGGATTGCCACACGGCTCACATTGCATGCAAGTTTGTGAGCTGAAGGAAAAGATTGATCGC  
CGTTCTGGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGAT  
ATGGTTCTGGCAAGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTGCTTTGCT  
GTTCTGTATATGAGACAGACAGTTGCGGTGGGTGTATCAAAGCAGTGACAGAAGGCTGCTGGA  
GCTGGCAAGGTCAACAGTCTGCCAGAAAGCTCAGAAGGCTAAA

&gt;EF1G(bait)

GCGGCTGGGACCCTGTACACGTATCCTGAAAACCTGGAGGGCCTTCAAGGCTCTCATCGCTGCTCAG  
TACAGCGGGCTCAGGTCCGCGTGCTCTCCGACCAACCCCACTTCCATTTTGGCCAAACCAACCGC  
ACCCCTGAATTTCTCCGCAAATTTCTGCGCGCAAGGTCCAGCATTTGAGGGTGATGATGGATTCT  
TGTGTGTTTGGAGCAACGCCATTGCCTACTATGTGAGCAATGAGGAGCTGCGGGGAAGTACTCCA  
GAGGCAGCAGCCCAGGTGGTGCAGTGGGTGAGCTTTGCTGATTCCGATATAGTCCCCCAGCCAGT  
ACCTGGGTGTTCCCCACCTTGGGCATCATGCACCACAACAAACAGGCCACTGAGAATGCAAAGGAG  
GAAGTGAGGCGAATTCTGGGGCTGCTGGATGCTTACTTGAAGACGAGGACTTTTCTGGTGGGCGAA  
CGAGTGACATTGGCTGACATCACAGTTGTCTGCACCCTGTTGTGGCTCTATAAGCAGGTTCTAGAG  
CCTTCTTTCCGCCAGGCCTTTCCCAATACCAACCGCTGGTTCTCACCTGCATTAACCAGCCCCAG  
TTCCGGGCTGTCTTGGGCGAAGTGAACTGTGTGAGAAGATGGCCAGTTTGATGCTAAAAGTTT  
GCAGAGACCCAACTAAAAAGGACACACCACGGAAAGAGAAGGTTTACGGGAAGAGAAGCAGAAG  
CCCCAGGCTGAGCGGAAGGAGGAGAAAAAGGCGCTGCCCTGCTCCTGAGGAGGAGATGGATGAA  
TGTGAGCAGGCGCTGGCTGCTGAGCCCAAGGCCAAGGACCCCTTCCGCTCACCTGCCCAAGAGTACC  
TTTGTGTTGGATGAATTTAAGCGCAAGTACTCCAATGAGGACACACTCTCTGTGGCACTGCCATAT  
TTCTGGGAGCACTTTGATAAGGACGGCTGGTCCCTGTGGTACTCAGAGTATCGCTTCCCTGAAGAA  
CTCACTCAGACCTTCATGAGCTGCAATCTCATCACTGGAATGTTCCAGCGACTGGACAAGCTGAGG  
AAGAATGCCTTCGCCAGTGTATCTTTTGGAAACCAACAATAGCAGCTCCATTTCTGGAGTCTGG  
GTCTTCCGAGGCCAGGAGCTTGCTTTCCGCTGAGTCCAGATTGGCAGGTGGACTACGAGTCATAC  
ACATGGCGGAAACTGGATCTTGGCAGCGAGGAGACCCAGACGCTGGTTCCGAGAGTACTTTTCTGG  
GAGGGGGCCTTCCAGCATGTGGGCAAAGCCTTCAATCAGGGCAAGATCTTCAAG

Figure 6 (continued)



>EF1G(pre)

GCGGCTGGGACCCCTGTACACGTATCCTGAAAACCTGGAGGGCCTTCAAGGCTCTCATCGCTGCTCAG  
TACAGCGGGGCTCAGGTCCGCGTGCTCTCCGCACCACCCCACTTCCATTTTGGCCAAACCAACCGC  
ACCCCTGAATTTCTCCGCAAATTTCTGCGGCAAGGTCCCAGCATTGAGGGTGATGATGCGATTTC  
TGTGTGTTTGAGAGCAACGCCATTGCCTACTATGTGAGCAATGAGGAGCTGCGGGGAAGTACTCCA  
GAGGCAGCAGCCAGGTGGTGCAGTGGGTGAGCTTTGCTGATTCCGATATAGTGCCTCCAGCCAGT  
~~ACCTGGGTGTTCCCTCACCTTGGGCATCATGCACCACAACAAACAGGCCACTGAGAATGCAAAGGAG~~  
GAAGTGAGGCGAATTCTGGGGCTGCTGGATGCTTACTTGAAGACGAGGACTTTTTCTGGTGGGCGAA  
CGAGTGACATTGGCTGACATCAGATTGTCTGCACCCTGTTGTGGCTCTATAAGCAGGTTCTTAGAG  
CCTTCTTCCGCCAGGCCCTTTCCCAATACCAACCGCTGGTTCCTCACCTGCATTAACCGCCAG  
TTCCGGGCTGTCTTGGGCGAAGTGAAACTGTGTGAGAAGATGGCCAGTTTGATGCTAAAAAGTTT  
GCAGAGACCCAACTAAAAAGGACACACCACGGAAAGAGAAGGGTTTACCGGAAGAGAAGCAGAAG  
CCCCAGGCTGAGCGGAAGGAGGAGAAAAAGGCGGCTGCCCTGCTCCTGAGGAGGAGATGGATGAA  
TGTGAGCAGGCGCTGGCTGCTGAGCCCAAGGCCAAGGACCCCTTTCGCTCACCTGCCCAAGAGTACC  
TTTGTGTTGGATGAATTTAAGCGCAAGTACTCCAATGAGGACACACTCTCTGTGGCACTGCCATAT  
TTCTGGGAGCACTTTGATAAGGACGGCTGGTCCCTGTGGTACTCAGAGTATCGCTTCCCTGAAGAA  
CTCACTCAGACCTTTCATGAGCTGCAATCTCATCACTGGAATGTTCCAGCGACTGGACAAGCTGAGG  
AAGAATGCCCTTCGCCAGTGTCTATCCTTTTGGAAACCAACAATAGCAGCTCCATTTCTGGAGTCTGG  
GTCTTCCGAGGCCAGGAGCTTGCTTCCCTTTCGCTGAGTCCAGATTGGCAGGTGGACTACGAGTCATAC  
ACATGGCGGAAACTGGATCCTGGCAGCGAGGAGACCCAGACGCTGGTTCCGAGAGTACTTTTCTCTGG  
GAGGGGGCCTTCCAGCATGTGGGCAAAGCCTTCAATCAGGGCAAGATCTTCAAG

>FEZ1

GGCAACTGCTCTGACACTGAGATCCATGAGAAAGAAGAGGAAGAGTTCAATGAGAAGAGTGAAAAAT  
GATTCGGGTATCAACGAGGAGCCTCTGCTCACAGCAGATCAGGTAATTGAGGAGATGAGGAAATG  
ATGCAGAACTCCCAGACCCCTGAGGAAGAAGAGGAGGTTCTGGAAGAAGAGGATGGAGGAAACT  
TCCTCCCAGGCAGACTCGGTCCTCCTGCAGGAGATGCAGGCATTGACACAGACCTTCAACAACAAC  
TGGTCCCTATGAAGGGCTGAGGCACATGTCTGGGTCTGAGCTGACCGAGCTGCTGGACCAGGTGGAG  
GGTGCCATCCGTGACTTCTCGGAGGAGCTGGTGCAGCAGCTGGCCCGCCGGGACGAGCTGGAGTTT  
GAGAAGGAAGTGAAGAACTCCTTTATCACGGTGCTTATTGAGGTTCAAGACAAGCAGAAGGAGCAG  
CGAGAAGTATGAAAAAGAGGCGGAAAGAGAAAGGGCTGAGCCTGCAGAGCAGCCGGATAGAGAAG  
GGAACCCAGATGGCTCTCAAGCGCTTCAGCATGGAAGGCATCTCCAACATTCTGCAGAGTGGCATC  
CGCCAGACCTTTGGCTCCTCAGGAAGTGAACAACAGTATCTGAACACAGTCATTCTTACGAGAAG  
AAAGCCTCTCCTCCTCAGTGGAAGACCTGCAGATGCTGACAAACATTCTCTTTGCCATGAAGGAG  
GATAATGAGAAGGTGCCTACTTTGCTAACGGACTACATTTTAAAGTGCTCTGCCCTACC

>G45IP1

ATGGCGTCGAGCGGCGGGGAGCTAGGGAGTTTATTTGATCACCACGTCCAGAGGGCGGTATGCGAC  
ACACGGGCCAAATATCGAGAGGGACGACGGCCTCGTGCTGTGAAGGTATATACAATCAATTTGGAA  
TCTCAGTACTTATTAATACAAGGAGTTCCTGCTGTGGGAGTCATGAAGGAATTAGTTGAGCGATTTC  
GCTTTATATGCTGCAATTGAACAGTACAATGCTCTAGATGAATACCCAGCAGAAGACTTTACTGAA  
GTTTATCTTATTAATTTATGAACCTTACAAGTGCAAGGACAGCCAAGAGAAAAATGGATGAACAG  
AGTTTCTTCGGTGGATTGCTTCATGTGTGCTATGCTCCAGAATTTGAAACAGTTGAAGAACTAGA  
AAAAACTACAAATGCGGAAGGCATATGTAGTAAAACTACTGAAAAATAAGACCATTACGTGACA  
AAGAAGAAATTGGTTACAGAGCATAAAGACACAGAGGATTTTAGACAAGACTTCCACTCAGAGATG  
TCTGGATTTTGTAAAGCTGCTTTGAACACTTCTGCAGGGAACCTCAAATCCTTATCTTCCGTATTCC  
TGTGAATTGCCCTTATGTTATTTCTCCTCAAAATGTATGTGTTTCATCCGGGGGACCTGTAGACAGA  
GCACCAGACTCCTCTAAGGATGGTAGAAACCATCATAAAACAATGGGGCATTATAACCACAATGAC  
TCTTTGCGGAAAAACACAGATAAACTCTTTGAAAACTCAGTGGCCTGCCCTGGTGCACAAAAGGCT  
ATTACGTCTTCAGAGGCAGTTGACAGATTTATGCCTAGGACAACACAACCTGCAGGAGCGCAAAAGA  
AGAAGAGAAGATGATCGTAACTTTGGAACCTTTCTTCAAACAACCCAACTGGTAATGAGATTATG  
ATTGACCTCTGTTACCAGACATCTCTAAGAGTGATATGCACGATGACTCATTGAATACAACGGCG  
AATTTAATTCGGCATAAACTTAAAGAGGTAATTTTCATCTGTGCCAAAGCCTCCAGAGGACAAGCCA  
GAAGATGTACATACAAGTCATCCATTAAACAAAGAAGAAGATA

Figure 6 (continued)

&gt;G45IP2

AGGACCTGTATGCCCTATATATTTTCTCTGTCTTGGAGGCTCTGAAATGTTTCCGCATCAGGAAC  
AATGAGAAGATGCTGAGTGACAGCCACGGCGTGGAGACCATCCGGGACATCCTGCCAGACAACAGC  
CTTGGGGGCCCATCCTTCTTCAAATCATCACGGCCAAGGCTGCTCTGAAGCTGCAGGCCGGAAC  
GCCGAGGAAGCCGCCCTGTGGAGGGATCTGGTCCGCAAAGTCTTGGCATCTACTTGGAGACAGCC  
GAGGAGGCGGTGACCTGGGCGGGAGCCTGGATGAAAACCTCTCAGGAGGTGCTGAAATTTGCGAAG  
CGGGAGAATGGCTTCTCTGCTGAGTACCTGGTGGCTATCCCCATGGAGAAAGGCCTTGACTCCCAA  
GGCTGCTTCTGCGCAGGCTGCTCCCGGCAGATCGGCTTCTCTCTTGTACGACCCAAAGCTCTGTGCC  
TTCTCTGGCCTCTATTACTGTGACATCTGCCACCAAGACGATGCCTCAGTGATTCCGGCCAGGATC  
ATCCACAACCTGGGACCTCACCAAGCGCCCGATCTGCAGGCAGGCCCTGAAGTTTCTGACACAGATC  
CGGGCCAGCCCCCTCATCAACCTGCAGATGGTGAACGCGTCTCTGTACGAGCATGTGGAGCGGATG  
CACCTCATTTGGGAGGAGACGGGAGCAGCTGAAGCTCCTGGGGGATTACCTGGGCCTGTGCCGGAGT  
GGCGCCTGAAGGAGCTCAGCAAGAGGCTGAACACACAGGAATTATCTCTTGGAACTCTCCGCATAGG  
TTCACTGTTGCTGACCTCCAACAGATCGCAGACGGGGTGTATGAAGGATTCTCAAGGCCCTGATT  
GAATTTGCCCTCCAGCATGTCTACCACTGCGACCTGTGCACCCAGCGCGGCTTCATCTGCCAGATC  
TGCCAGCACCACGACATCATCTTCCCTTTGAGTTTGACACCACAGTCAGGTGTGCCGAGTGCAAG  
ACCGTCTTCCACCAGAGCTGCCAGGCTGTGGTGAAGAAGGGCTGCCCCCGCTGTGCCCGCCGGCGC  
AAGTACCAGGAACAGAACATTTTCGCC

&gt;G45IP3

CCTAACAGGGGGCCCTCTCAGCCCTCCTAATGACCTCCGGCCTAGCCATGTGATTTCACTTCCACTC  
CATAACGCTCCTCATACTAGGCCTACTAACCAACACACTAACCATATACCAATGATGGCGCGATGT  
AACACGAGAAAGCACATAACCAAGGCCACCAACACCTGTCCAAAAGGCTTCGATACGGGAT  
AATCCTATTTATTACCTCAGAAGTTTTTTTTCTTCCGAGGATTTTCTGAGCCTTTTACCACTCCAG  
CCTAGCCCCTACCCCCCAATTAGGAGGGCACTGGCCCCCAACAGGCATCACCCCGCTAAATCCCCT  
AGAAGTCCCCTCCTAAACACATCCGTATTACTCGCATCAGGAGTATCAATCACCTGAGCTCACCA

&gt;GADD4.5G

GGTGCAGGCGCTGAGCCGGGATTGGAGTGTGGTTGGAGTTGGGGAGCCAAGGGTGTGTGCCGGTGG  
CCGGGGCTGGGGTCTCCGCCCGCCCTCCGGCCGGCTCCCGCTCACTGCGCTGGCTCCTCCGCAGG  
ATGCAGGGTGCCGGGAAAGCGCTGCATGAGTTGCTGCTGTCCGGCGCAGCGTCAGGGCTGCCCTCACT  
GCCGGCGTCTACGAGTCAGCCAAAGTCTTGAACGTGGACCCCGACAATGTGACCTTCTGTGTGCTG  
GCTGCGGGTGAGGAGGACGAGGGCGACATCGCGCTGCAGATCCATTTTACGCTGATCCAGGCCTTC  
TGCTGCGAGAACGACATCGACATAGTGCGCGTGGGCGATGTGCAGCGGCTGGCGGCTATCGTGGGC  
GCCGGCGAGGAGGCGGGTGCGCCGGCGACCTGCACTGCATCCTCATTTTGAACCCCAACGAGGAC  
GCCTGGAAGGATCCCGCCTTGAGAGAAGCTCAGCCTGTTTTCGAGGAGAGCCGCAGCGTTAACGAC  
TGGGTGCCCAGCATCACCTCCCCGAG

Figure 6 (continued)

>GIT1  
CCACAGATGGCTGACAGATCTCGGCAAAAGTGCATGTCTCAGAGCCTTGACTTATCCGAATTGGCC  
AAAGCTGCTAAGAAGAAGCTGCAGGCGCTCAGCAACCGGCTTTTGGAGAACTCGCCATGGACGTG  
TATGACGAGGTGGATCGAAGAGAAAATGATGCAGTGTGGCTGGCTACCCAAAACACAGCACTCTG  
GTGACAGAGCGCAGTGCCTGCCCCCTTCTGCTGTAAACCCGGAATACTCAGCCACGCGGAATCAG  
GGGCGACAAAAGCTGGCCCCGCTTTAATGCCCGAGAGTTTGCCACCTTGATCATCGACATTCTCAGT  
GAGGCCAAGCGGAGACAGCAGGGCAAGAGCCTGAGCAGCCCCACAGACAACCTCGAGCTGTCTCTG  
CGGAGCCAGAGTGACCTCGACGACCAACACGACTACGACAGCGTGGCCTCTGACGAGGACACAGAC  
CAGGAGCCCCCTGCGCAGCACCGGCGCCACTCGGAGCAACCGGGCCCGGAGCATGGACTCCTCGGAC  
TTGTCTGACGGGGCTGTGACGCTGCAGGAGTACCTGGAGCTGAAGAAGGCCCTGGCTACATCGGAG  
GCAAAGGTGACAGAGCTCATGAAGGTCAACAGTAGCCTGAGCGACGAGCTCCGGAGGGCTGCAGCGA  
GAGATCCACAAGCTGCAGGCGGAGAACCTGCAGCTCCGGCAGCCTCCAGGGCCGGTGGCCACACCT  
CCACTCCCCAGTGAACGGGCGGAACACACACCCATGGCGCCAGGCGGGAGCACACACCGCAGGGAT  
CGCCAGGCCCTTTTCCATGTATGAACCTGGCTCTGCCCTGAAGCCCTTTGGGGGCCCCCTGGGGAC  
GAGCTCACTACGCGGCTGCAGCCTTTCCACAGCACTGAGCTAGAGGACGACGCCATCTATTCACTG  
CACGTCCTGCTGGCCTTTACCGGATCCGGAAAGGGGTGTCTGCCTCAGCTGTGCCCTTCACTCCC  
TCCTCCCCGCTGCTGTCTCTGCTCCCAGGAGGGAAGCCGCCACACGAGCAAGCTTTCGCCCCACGGC  
AGTGGAGCCGACAGTGACTATGAGAACACGCAAGAGTGGGGACCCACTGCTGGGGCTGGAAGGGAAG  
AGGTTTCTAGAGCTGGGCAAAGAGGAAGACTTCCACCCAGAGCTGGAAAGCCTGGATGGAGACCTA  
GATCCTGGGCTTCCCAGCACAGAGGATGTCTCTTGAAGACAGAGCAGGTCAACAAGAACATTCAG  
GAACTGTGCGGGCAGCCAGGAGTTCAAGCATGACAGCTTCGTGCCCTGCTCAGAGAAGATCCAT  
TTGGCTGTGACCGAGATGGCCTCCCTCTTCCCAAAGAGGCCAGCCTGGAGCCAGTGCAGGAGCTCA  
CTGCGGCTGCTCAACGCCAGCGCCTACCGGCTGCAGAGTGAGTGCCCGAAGACAGTGCCCCCAGAG  
CCCCGGCCCCAGTGGACTTCCAGCTGCTGACTCAGCAGGTGATCCAGTGCGCCTATGACATCGCC  
AAGGCTGCCAAGCAGCTGGTCAACCATCACCAACCCGAGAGAAGAAGCAG  
>hADA3  
AAAGATGTGGATGCCCTGCTGAAGAAGTCTGAGGCCAGCATGAACAGCCGGAAGATGGATGCCCC  
TTTGGTGCCCTGACGCAGCGCTCCTGCAGGCCCTGGTGGAGGAAAATATTATTTCCCTATGGAG  
GATTCTCCTATTCTGACATGTCTGGGAAAGATCAGGGGCTGACGGGGCAAGCACCTCCCCCTCGC  
AATCAGAACAAAGCCCTTCAGTGTGCCGATACTAAGTCCCTGGAGAGCCGCATCAAGGAGGAGCTA  
ATTGCCCAGGGCCTTTTGGAGTCTGAGGACCGCCCCGACAGGACTCCGAGGATGAGGTCTCTGCT  
GAGCTTCGCAAACGGCAGGCTGAGCTGAAGGCACTTAGTGCCCAACCGCAACAAGAAGCACGAC  
CTGCTGAGGCTGGCAAAGGAGGAGGTGAGCCGGCAGGAGCTGAGGCAGCGGGTGCATGGCTGAC  
AACGAGGTGATGGACGCCTTTCCGAAGATCATGGCTGCCCGGCAGAAAGAAGCGGACTCCCAACGA  
AAAGAAAAGGACCAGGCCTGGAAGACTCTGAAGGAGCGTGAGAGCATCCTGAAGCTGCTGGATGGG

Figure 6 (continued)

>HBO1  
GACGCTGAGAGGCAGGAGGCACTAGGGATCGTCCGCAGGATTGGGACTGATACAGAGGCCGCCACG  
GAGCCCGCCGGAGCCACCGTTCTGCTGCTGCCGCCGCTGCCCGAATCGGAACCGTTCGGGCCGCAG  
CCGCCGGCAATGCCGCCGAAGGAAGAGGAATGCAGGCAGTAGTTTCAGATGGAAACCGAAGATTCCGAT  
TTTTCTACAGATCTCGAGCACACAGACAGTTTCAGAAAGTGATGGCACATCCCGACGATCTGCTCGA  
GTCACCCGCTCCTCAGCCAGGCTAAGCCAGAGTTCTCAAGATTCCAGTCCCTGCTTCGAAATGTTGGAG  
TCTTTTGGCACTGAGGAGGCTGCTTACTCTACCAGAAAGTGAACCCGTAGTTCAGCAGCAGCCTACC  
CCAGTGACACCGAAAAAATACCCCTCTTCGGCAGACTCGTTTCATCTGGTTCAGAAACTGAGCAAGTG  
GTTGATTTTTTCAGATAGAGAACTAAAAATACAGCTGATCATGATGAGTCACCGCCTCGAACTCCA  
ACTGGAAATGCGCCTTCTTCTGAGTCTGACATAGACATCTCCAGCCCCAATGTATCTCACGATGAG  
AGCATTGCCAAGGACATGTCCCTGAAGGACTCAGGCAGTGATCTCTCTCATCGCCCCAAGCGCCGT  
CGCTTCCATGAAAGCTACAACCTCAATATGAAGTGTCTTACACCAGGCTGTAACTCTCTAGGACAC  
CTTACAGGAAAAATGAGAGACATTTCTCCATCTCAGGATGCCCACTGTATCATAACCTCTCAGCT  
GACGAATGCAAGGTGAGAGCACAGAGCCGGGATAAGCAGATAGAAGAAAGGATGCTGTCTCACAGG  
CAAGATGACAACAACAGGCATGCAACCAGGCACCAGGCACCAACGGAGAGGCAGCTTCGATATAAG  
GAAAAAGTGGCTGAACTCAGGAAGAAAAAGAAATTTCTGGACTGAGCAAAGAACAGAAAGAAATAT  
ATGGAACACAGACAGACCTATGGGAACACACGGGAACCTCTTTTAGAAAACTGACAAGCGAGTAT  
GACTTGGATCTTTTCCGAAGAGCACAAAGCCCGGGCTTCAGAGGATTTGGAGAAGTTAAGGCTGCAA  
GGCCAAATCACAGAGGGGAAGCAACATGATTAAAACAATTGCTTTTGGCCGCTATGAGCTTGATACC  
TGGTATCATTCTCCATATCCTGAAGAATATGCACGGCTGGGACGTCTCTATATGTGTGAATTCTGT  
TTAAATATATGAAGAGCCAAACGATACTCCGCCGGCACATGGCCAAATGTGTGTGGAACACCCA  
CCTGGTGATGAGATATATCGCAAAGGTTCAATCTCTGTGTTTGAAGTGGATGGCAAGAAAAACAAG  
ATCTACTGCCAAAACCTGTGCCTGTTGGCCAAACTTTTTCTGGACCACAAGACATTATATTATGAT  
GTGGAGCCCTTCTGTCTATGTTATGACAGAGGCGGACAACACTGGCTGTACCTGATTGGATAT  
TTTTCTAAGGAAAAGAATTCATTCTCAACTACAACGTCTCCTGTATCCTTACTATGCCTCAGTAC  
ATGAGACAGGGCTATGGCAAGATGCTTATTGATTTCAGTTATTGCTTTCCAAAGTCGAAGAAAAA  
GTACTTCTCCGCTACCTGCATAATTTTCAAGGCAAAGAGATTTCTATCAAAGAAATCAGTCAGGAG  
ACGGCTGTGAATCCTGTGACATTGTCAGCACTCTGCAAGCCCTTCAGATGCTCAAATACTGGAAG  
GGAAAACACCTAGTTTTAAAGAGACAGGACCTGATTGATGAGTGGATAGCCAAAGAGGCCAAAAGG  
TCCAACCTCCAATAAAACCATGGATCCAGCTGCTTAAAATGGACCCCTCCCAAGGGCACT

Figure 6 (continued)

&gt;HD1.7

ATGGCGACCCCTGGAAAAGCTGATGAAGGCCCTTCGAGTCCCTCAAGTCCTTCCAGCAGCAGCAGCAG  
CAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCCGCCACCGCCG  
CCGCCGCCGCCGCCCTCCTCAGCTTCCTCAGCCGCCGCCGCCAGGCACAGCCGCTGCTGCCTCAG  
CCGCAGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCTGTGGCTGAGGAGCCGCTGCAC  
CGACCAAAGAAAGAACTTTTCTAGCTACCAAGAAAGACCGTGTGAATCATTTGTCTGACAATATGTGAA  
AACATAGTGGCAGAGCTCTGTGAGAAATTTCTCCAGAAATTTTCAGAAATTTCTGGGCATCGCTATGGAA  
CTTTTCTGCTGTGCTGATGACGCAGAGTCAGATGTCAGGATGGTGGCTGACGAATGCCTCAAC  
AAAGTTATCAAAGCTTTGATGGATTCTAATCTTCCAAGGTTACAGCTCGAGCTCTATAAGGAAATT  
AAAAAGAATGGTGCCCTCGGAGTTTGCGTGCTGCCCTGTGGAGGTTTGCTGAGCTGGCTCACCTG  
GTTCCGCCCTCAGAAATGCAGGCCTTACCTGGTGAACCTTCTGCCCTGCTGACTCGAACAAGCAAG  
AGACCCGAAGAATCAGTCCAGGAGACCTTGGCTGCAGCTGTTCCCAAAATTATGGCTTCTTTTGGC  
AATTTTGCAAATGACAATGAAATTAAGGTTTTGTTAAAGGCCCTTCATAGCGAACCTGAAGTCAAGC  
TCCCCCACCATTTCGGCGGACAGCGGCTGGATCAGCAGTGAGCATCTGCCAGCACTCAAGAAGGACA  
CAATATTTCTATAGTTGGCTACTAAATGTGCTCTTAGGCTTACTCGTTTCTGTGAGGATGAACAC  
TCCACTCTGCTGATTCTTGGCGTGCTGCTCACCTTGAGGTATTTGGTGCCCTTGCTGCAGCAGCAG  
GTCAAGGACACAAGCCTGAAAGGCAGCTTCGGAGTGACAAGGAAAGAAATGGAAGTCTCTCTCTTCT  
GCAGAGCAGCTTGTCCAGGTTTATGAACTGACGTTACATCATACAGCAGCAAGACCAATATGTT  
GTGACCGGAGCCCTGGAGCTGTTGCAGCAGCTCTTCAGAACGCCCTCCACCCGAGCTTCTGCAAACC  
CTGACCGCAGTCGGGGGCATTGGGCAGCTCACCGCTGCTAAGGAGGAGTCTGGTGGCCGAAGCCGT  
AGTGGGAGTATTGTGGAACCTATAGCTGGAGGGGGTTCTCATGCAGCCCTGTCTTTCAAGAAAA  
CAAAAAGGCAAAGTGCTCTTAGGAGAAGAAGCCTTGGAGGATGACTCTGAATCGAGATCGGAT  
GTCAGCAGCTCTGCCTTAACAGCCTCAGTGAAGGATGAGATCAGTGGAGAGCTGGCTGCTTCTTCA  
GGGGTTTCCACTCCAGGGTCAGCAGGTGATGACATCATCAGAACAGCCACGGTTCACAGCACT  
GCAGGCGGACTCAGTGGATCTGGCCAGCTG

&gt;Hdd1.0

ATGGCGACCCCTGGAAAAGCTGATGAAGGCCCTTCGAGTCCCTCAAGTCCTTCCAGCAGCAGCAGCAG  
CAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCCGCCACCGCCG  
CCGCCGCCGCCGCCCTCCTCAGCTTCCTCAGCCGCCGCCGCCAGGCACAGCCGCTGCTGCCTCAG  
CCGCAGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCTGTGGCTGAGGAGCCGCTGCAC  
CGACCAAAGAAAGAACTTTTCTAGCTACCAAGAAAGACCGTGTGAATCATTTGTCTGACAATATGTGAA  
AACATAGTGGCAGAGCTCTGTGAGAAATTTCTCCAGAAATTTTCAGAAATTTCTGGGCATCGCTATGGAA  
CTTTTCTGCTGTGCTGATGACGCAGAGTCAGATGTCAGGATGGTGGCTGACGAATGCCTCAAC  
AAAGTTATCAAAGCTTTGATGGATTCTAATCTTCCAAGGTTACAGCTCGAGCTCTATAAGGAAATT  
AAAAAGAATGGTGCCCTCGGAGTTTGCGTGCTGCCCTGTGGAGGTTTGCTGAGCTGGCTCACCTG  
GTTCCGCCCTCAGAAATGCAGGCCTTACCTGGTGAACCTTCTGCCCTGCTGACTCGAACAAGCAAG  
AGACCCGAAGAATCAGTCCAGGAGACCTTGGCTGCAGCTGTTCCCAAAATTATGGCTTCTTTTGGC  
AATTTTGCAAATGACAATGAAATTAAGGTTTTGTTAAAGGCCCTTCATAGCGAACCTGAAGTCAAGC  
TCCCCCACCATTTCGGCGGACAGCGGCTGGATCAGCAGTGAGCATCTGCCAGCACTCAAGAAGGACA  
CAATATTTCTATAGTTGGCTACTAAATGTGCTCTTAGGCTTACTCGTTTCTGTGAGGATGAACAC  
TCCACTCTGCTGATTCTTGGCGTGCTGCTCACCTCTCTAGA

Figure 6 (continued)

&gt;Hdd1.3

CCAAGGTTACAGCTCGAGCTCTATAAGGAAATTAAAAAGAATGGTGCCCCCTCGGAGTTTGCGTGCT  
GCCCTGTGGAGGTTTGTGAGCTGGCTCACCTGGTTCGGCCTCAGAAATGCAGGCCTTACCTGGTG  
AACTTCTGCGGTGCCTGACTCGAACAAGCAAGAGACCCGAAGAATCAGTCCAGGAGACCTTGGCT  
GCAGCTGTTCCCAAATTAATGGCTTCTTTGGCAATTTTGCAAATGACAATGAAATTAAGGTTTTG  
TTAAAGGCTTTCATAGCGAAGCTGAAGTCAAGCTGGGGGAGGCTTGGGGGACAGGGGTTGATCA  
GCAGTGAGCATCTGCCAGCACTCAAGAAGGACACAATATTTCTATAGTTGGCTACTAAATGTGCTC  
TTAGGCTTACTCGTTCCTGTGAGGATGAACACTCCACTCTGCTGATTCTTGGCGTGCTGCTCACC  
CTGAGGTATTTGGTGCCCTTGCTGCAGCAGCAGGTCAAGGACACAAGCCTGAAAGGCAGCTTCGGA  
GTGACAAGGAAAGAAATGGAAGTCTCTCTTCTGCAAGCAGCAGCTTGTCCAGGTTTATGAACTGACG  
TTACATCATACACAGCACCAAGACCACAATGTTGTGACCGGAGCCCTGGAGCTGTTGCAGCAGCTC  
TTCAGAACGCCTCCACCCGAGCTTCTGCAAACCTGACCGCAGTCGGGGGCAATTGGGCAGCTCACC  
GCTGCTAAGGAGGAGTCTGGTGGCCGAAGCCGTAGTGGGAGTATTGTGGAACCTTATAGCTGGAGGG  
GGTTCCTCATGCAGCCCTGTCTTTCAAGAAAACAAAAAGGCAAAGTGCTCTTAGGAGAAGAAGAA  
GCCTTGGAGGATGACTCTGAATCGAGATCGGATGTGAGCAGCTCTGCCTTAACAGCCTCAGTGAAG  
GATGAGATCAGTGGAGAGCTGGCTGCTTCTTCAGGGGTTTCCACTCCAGGGTCAGCAGGTCTGAC  
ATCATCACAGAACAGCCACGGTCACAGCACACTGCAGGCGGACTCAGTGGATCTGGCCAGCTG  
>HdexQ20

ATGGCGACCCTGGAAGAGATGATGAAGGCCTTTCGAGTCCCTCAAGTCCCTCCAGCAGCAGCAGCAG  
CAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCCGCCACCGCCGCCGCCGCCG  
CCGCCGCCGCCGCCCTCCTCAGCTTCTCAGCCGCCGCCGCCAGGCACAGCCGCTGCTGCCTCAGCCG  
CAGCC  
CCG

&gt;HdexQ51

ATGGCGACCCTGGAAGAGCTGATGAAGGCCTTTCGAGTCCCTCAAGTCCCTCCAGCAGCAGCAGCAG  
CAG  
CAG  
CAACAGCCGCCACCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCC  
CAGCCGCTGCTGCCTCAGCCGCCAGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCCGCC  
CTGAGGAGCCGCTGCACCGACCGTGAGTCGAC

&gt;HIP1

GCTGACACCCTGCAAGGCCACCGGGACCGCTTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTT  
TACCGCTCCAGCAACCTGCAGTACTTCAAGCGGCTCATTTCAGATCCCCAGCTGCCCTGAGAACC  
CCCACTTCTGCGAGCCTCAGCCCTGTGAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAG  
GCCTCATCCCCGACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCCTCTCAG  
CAGAATTTATTTGACAACAAGTTTGATGACATCTTTGGCAGTTTCATTTCAGCAGTGATCCCTTCAAT  
TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAGAGAG  
ATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGTGCTGCAGCTG  
AAGGGCCACGTACGCGAGCTGGAAGCAGATCTGGCCGAGCAGCAGCACCTGCGGCAGCAGCGGCC  
GACGACTGTGAATTCTGCGGGCAGAACTGGACGAGCTCAGGAGGCAGCGGGAGGACACCGAGAAG  
GCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCAAGCCAATGAACAGCGATATAGCAAGCTA  
AAGGAGAAGTACAGCGAGCTGGTTTCAGAACCCAGCTGACCTGCTGCGGAAGAATGCAGAGGTGACC  
AAACAGGTGTCCATGGCCAGACAAGCCCAGGTAGATTGGAACGAGAGAAAAAGAGCTGGAGGAT  
TCGTTGGAGCGCATCAGTGACCGAGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGC  
TTGAAGCAGGAACCTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAACTTCT  
GCCAGTCAAGAAGCAAACCTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGCTG  
AGTGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAGAACTGCAGGACACTCAGCTC  
AAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAATGCTTCTGGTG  
GGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCGTCGACGCGGCCG

Figure 6 (continued)

&gt;HIP11

GTGGACCTTGTGACCGCCTGTGACATCCGGTACTGTGCCCAGGATGCTTTCTTCCAGGTGAAGGAG  
GTGGACGTTGGGTTTGGCTGCCGATGTAGGAACACTGCAGCGCCTGCCCAAGGTCATCGGGAACCCAG  
AGCCTGCTCAACGAGCTGGCCTTCACCGCCCGCAAGATGATGGCTGACGAGGCCCTGGGCAGTGGG  
CTGGTCAGCCGGGTGTTCCAGACAAAGAGGTCTGCTGGATGCTGCCCTTAGCGCTGGCGGCCGAG  
ATTTCAGCAAGAGCCCCGTGGCGGTGCAGAGCACCAAGGTCAACCTGCTGTATTCCCGCGACCAT  
TCGGTGGCCGAGAGCCTCAACTACGTGGCGTCTTGAACATGAGCATGCTGCAGACCCAAGACCTC  
GTGAAGTCGGTCCAGGCCACGACTGAGAACAAGGAAGTGAACCCGTCACCTTCTCCAAGCTC

&gt;HIP13

CCCTGCTGCTCTGAGGACACCATCCCTTCCCAAGTTTCAGATTATGATTATTTCTCTGTAAGTGGT  
GACCAGGAGGCAGATCAGCAGGAGTTTCGACAAGTCCTCCACCATTCCAAGAAACAGCGACATCAGC  
CAGTCTTACCGACGGATGTTCCAAGCCAAGCGTCCAGCCTCAACTGCTGGCCTCCCCACCACCCTG  
GGACCTGGTATGGTCACTCCAGGGGTTGCAACTATCCGACGGAGCCCTTCCACCAAGCCTTCTGTG  
CGCCGGGGAACCATTTGGAGCTGGTCCCATCCCCATCAAGACACCCGTGATCCCTGTCAAGACCCCA  
ACCGTCCAGACCTCCAGGGGTGTTGCCAGCCCTCCAGATGGGCCAGAAGAGCGGGGGGAGCAC  
AGCCCTGAGTCGCCATCTGTGGGTGAGGGCCCCCAAGGTGTCACCAGCATGCCCTCCTCAATGTGG  
AGCGGCCAAGCTTCCGTTAACCTCCACTTCCAGGCCCGAAGCCAGTATCCCTGAGGAGCACAGA  
CAGGCAATTCCAGAAAGTGAAGCTGAAGACCAGGAACGGGAACCCCCAAGTGCCACTGTCTCCCCA  
GGCCAGATTCCAGAGAGTGACCTGACACCTGAGCCCAAGGGATACTCCACAAGGAGAAGACATG  
CTGAACGCCATCCGAAGGGCGTGAACTGAAGAAGACCACGACAAACGATCGCTCAGCCCCCTCGC  
TTTTCT

&gt;HIP15

ATTACATGGGTCCACCTTATCCAAATCTAAACATGATTGAGACATTCATATGTCAAGTGTGTGAG  
GAAACCCCTTGACATAGTGTGGATTCCCTTGAGCAGCTGACTGGAATAAGGATGCTTAGACACCTC  
ACTATGACTATTGACTATCACACACTGATTGCCAACTATATGTCCGGGTTTCTCTCCTTATTAACC  
ACAGCCAATGCGAGAACGAAGTTTCAGCTTCTGAAAATGCTATTGAATTTGTCTGAAAATCCTGCT  
GTGGCAAAAAAACTATTCAAGTCCAAAGCTCTTTCAATATTTGTGGGTCTCTTTAACATAGAAGAG  
ACAAATGATAATATTCAAATTGTTATTAATAATGTTTCAGAATATCAGTAACATTATAAAAAGTGA  
AAGATGTCCTTAATTGATGATGATTTCAGTCTTGAGCCGCTTATTTCTGCATTTCTGTGAATTTGAG  
GAGTTAGCTAAGCAACTACAAGCCCAAATAGACAACCAAATGATCCTGAGGTGGGACAACAAAGT

&gt;HIP16

GATGAAGAGGAGAGAAACCATAGGCAGATGATAAAGGAAGCTTTTGCTGGGGATGATGTCATCAGA  
GATTTCTTGAAAGAGAGAAGAGGGGAAGCTGTGGAGGCGAGTAAGCCAAAGGACGTGGACCTGACACTA  
CCTGGCTGGGGCGAGTGGGGTGGTGTGGGCCTAAAGCCCAAGTGCCTCAAGAAAAGACGCCGGTTTCTC  
ATTAAAGCCCTGAGGGTCTTCCAAGAAAAGATAAGAATTTGCCAAATGTGATTATCAATGAGAAG  
CGCAACATCCACGCAGCTGCTCATCAGGTACGAGTGCTTCCATATCCATTACCCACCATTGGC  
TTTGAAAGGACCATCCAGACCCCCATAGGATCCACATGGAACACCCAGAGGGCTTTCCAAAAGCTG  
ACTACTCCCAAGGTGCTCACCAAGCCAGGCCATATCATTAACCCCATAAAAGCAGAAGACGTGGGC  
TACCGGTCTTCTCAAGGTGGACCTGTCTGTATACAGAGGAATCCAAAACGAATCACACACGT  
CACAAAAACAGCTGAAGAAATGCTCTGTAGAT

&gt;HIP2

ATGGCCAACATCGCGGTGCAGCGAATCAAGCGGGAGTTCAAGGAGGTGCTGAAGAGCGAGGAGACG  
AGCAAAAATCAAATTAAAGTAGATCTTGTAGATGAGAATTTTACAGAATTAAGAGGAGAAATAGCA  
GGACCTCCAGACACACCATATGAAGGAGGAAGATACCAACTAGAGATAAAAATACCAGAAACATAC  
CCATTTAATCCCCCTAAGGTCCGGTTTATCACTAAAAATATGGCATCCTAATATTAGTTCCGTCACA  
GGGGCTATTGTTTGGATATCCTGAAAGATCAATGGGCAGCTGCAATGACTCTCCGCACGGTATTA  
TTGTCAATTGCAAGCACTATTGGCAGCTGCAGAGCCAGATGATCCACAGGATGCTGTAGTAGCAAT  
CAGTACAAACAAAATCCCGAAATGTTCAAACAGACAGCTCGACTTTGGGCACATGTGTATGCTGGA  
GCACCAGTTTCTAGTCCAGAAATACACCAAAAAATAGAAAACCTATGTGCTATGGGCTTTGATAGG  
AATGCAGTAATAGTGGCCTTGTCTTCAAATCATGGGATGTAGAGACTGCAACAGAATTGCTTCTG  
AGTAACTG

Figure 6 (continued)



>HIP5 (bait)

TTTCTTAAAAGTATTTTAAAGAAAGAATCTAAATATGAACATGGTTATCTTAAGGCATTAA TTATA  
AATCAGAGCTTTAAGTTTGGAAATCAAAAAGCAGCAGCTATCAGAGATAGTATTGAATTAA CAAAG  
GAAAAAGGTGCAGAAATTCCAAAGACTATTAAAAAACTGAGGTGGTTTGATGAAACTAGCAATATA  
GAAAACAATGCTGAAAACAGTCATTCACTGAAGAATAAAACAGGAACAACCTCAACAGCATTCTCAA  
CAATTCCACATTCAAAGTGGTGGCTGGAAGCAACATAATTAGTGTCTTCTACTTGTGCTCTAAATTCT  
GCTGATACAAAGAAGTCCAGGGAGGATTCTATCTCTGAAAATGTTACGACTTTAGGAGGATCTGGA  
GCAGACCATATGCCTTTGAACTGTTTTATACCTTCAGGTTATAACTTTGCTAAACATGCCTGGCCA  
GCCTCAAAAAAAGAAGAAAGTAAATCCCTGTACATGATGATTCTAAAACCTAAGCAAGGTAAGCCA  
CAAAGAGGTAGAGCAAAAATAATTAGAAAACCAGGATCTGCAAAAGTCCAATCAGGCTTTATATGT  
ACAAACAGAAAAGGCGCTGTCAATCAACCACAGTCTGCAAGCAAAGTCAACATATTTACACAAGCT  
CAGGGAAAATTAATTATACCTTGTCCTCCTCCTCAATCTACATCAAATATTAGAAGTGGTAAAAAT  
ATACAAGTGTCTCAGTGTCAAGCAGTAAGTCTCTGAAAATCCTCAAAACATTATTACACATAACTCT  
TTTAATTCAAAACATGTGCTTCCAACAGAACACAGTTTGAATCAGTGGAAATCAGGAAAGTAGTTCT  
CCACTCTCAAATGCTTGTCTGACCTAGTCACTGTGATACCATCACTGCCATCATATTGTTCTTCA  
GAGTGCCAAACTTTTCGCAAAAATAAATCATTCAAATGGCACTCAAGCAGTTGCCCCGGAAGATGCG  
ACATTATATTGCACCCAAAGAAGTCCCTGTTTGTGAAGAAAGTTATCCGTCTGTGACTCTAAGAACT  
GCTGAAGAAGAATCAGTTCCCTTATGGAAAAGAGGTCTTAATGTCTGTCATCAAAATAAGAGGGCT  
ACAGGGTCTACTGTTATGAGAAGAAAACGAATTGCTGAAACTAAGCGGAGAAATATTTTAGAGCAG  
AAAAGACAAAACCTGGATCTGTAGGACAGAAGTACAGTGAAGCAAAATTAATAATTTTGGACAAAGT  
GTCCTGCTAAGTTCAAGTGAGCCAAAACAACTACAAGGGGTACTTCTTATATTGAAGAAGTTTCA  
GATAGTACTTCTGAGTTTTTGTGCTGAAAACCTTAGTGAAAGCATCAGTGCCGGAGGATGAGATT  
CTGACTGTCTTGAATAGCAAACAGATACAGAAATCAAATCTACCTTTAAATAAAACTCAACAATTG  
AACATCTGCACACTGTCAGCTGAAGAACAGAAGATCCTAGAGTCCCTTAATGATCTCAATGAAAGA  
CTACATTATATACAAGAATCCATTGTGCAAAAACCCATCCATCAAAAATACTTTACAAATAATACCA  
CTTCTGGAGAAGAGAGAAGATAGAACCAGCAGCTGCAGAGACAAGAGA

>HIP5 (prey)

TTTCTTAAAAGTATTTTAAAGAAAGAATCTAAATATGAACATGGTTATCTTAAGGCATTAA TTATA  
AATCAGAGCTTTAAGTTTGGAAATCAAAAAGCAGCAGCTATCAGAGATAGTATTGAATTAA CAAAG  
GAAAAAGGTGCAGAAATTCCAAAGACTATTAAAAAACTGAGGTGGTTTGATGAAACTAGCAATATA  
GAAAACAATGCTGAAAACAGTCATTCACTGAAGAATAAAACAGGAACAACCTCAACAGCATTCTCAA  
CAATTCCACATTCAAAGTGGTGGCTGGAAGCAACATAATTAGTGTCTTCTACTTGTGCTGTAAATTCT  
GCTGATACAAAGAAGTCCAGGGAGGATTCTATCTCTGAAAATGTTACGACTTTAGGAGGATCTGGA  
GCAGACCATATGCCTTTGAACTGTTTTATACCTTCAGGTTATAACTTTGCTAAACATGCCTGGCCA  
GCCTCAAAAAAAGAAGAAAGTAAATCCCTGTACATGATGATTCTAAAACCTAAGCAAGGTAAGCCA  
CAAAGAGGTAGAGCAAAAATAATTAGAAAACCAGGATCTGCAAAAGTCCAATCAGGCTTTATATGT  
ACAAACAGAAAAGGCGCTGTCAATCAACCACAGTCTGCAAGCAAAGTCAACATATTTACACAAGCT  
CAGGGAAAATTAATTATACCTTGTCCTCCTCCTCAATCTACATCAAATATTAGAAGTGGTAAAAAT  
ATACAAGTGTCTCAGTGTCAACCAGTAACCTCTGAAAATCCTCAAAACATTATTACACATAACTCT  
TTTAATTCAAAACATGTGCTTCCAACAGAACACAGTTTGAATCAGTGGAAATCAGGAAAGTAGTTCT  
CCACTCTCAAATGCTTGTCTGACCTAGTCACTGTGATACCATCACTGCCATCATATTGTTCTTCA  
GAGTGCCAAACTTTTCGCAAAAATAAATCATTCAAATGGCACTCAAGCAGTTGCCCCGGAAGATGCG  
ACATTATATTGCACCCAAAGAAGTCCCTGTTTGTGAAGAAAGTTATCCGTCTGTGACTCTAAGAACT  
GCTGAAGAAGAATCAGTTCCCTTATGGAAAAGAGGTCTTAATGTCTGTCATCAAAATAAGAGGGCT  
ACAGGGTCTACTGTTATGAGAAGAAAACGAATTGCTGAAACTAAGCGGAGAAATATTTTAGAGCAG  
AAAAGACAAAACCTGGATCTGTAGGACAGAAGTACAGTGAAGCAAAATTAATAAATTTTGGACAAAGT  
GTCCTGCTAAGTTCAAGTGAGCCAAAACAACTACAAGGGGTACTTCTTATATTGAAGAAGTTTCA  
GATAGTACTTCTGAGTTTTTGTGCTGAAAACCTTAGTGAAAGCATCAGTGCCGGAGGATGAGATT  
CTGACTGTCTTGAATAGCAAACAGATACAGAAATCAAATCTACCTTTAAATAAAACTCAACAATTG  
AACATCTGCACACTGTCAGCTGAAGAACAGAAGATCCTAGAGTCCCTTAATGATCTCAATGAAAGA  
CTACATTATATACAAGAATCCATTGTGCAAAAACCCATCCATCAAAAATACTTTACAAATAATACCA  
CTTCTGGAGAAGAGAGAAGATAGAACCAGCAGCTGCAGAGACAAGAGA

Figure 6 (continued)



&gt;HMP

CAAGAACAAAGTTAAAAATTGAGTCTCTAGCCAAAGAGCTTAGAAGATGCTCTGAGGCAAACCTGCAAGT  
GTCACCTCTGCAGGCTATTGCAGCTCAGAATGCTGCGGTCCAGGCTGTCAATGCACACTCCAACATA  
TTGAAAGCCCGCCATGGACAATTCTGAGATTGCAGGCGAGAAGAAATCTGCTCAGTGGCGCACAGTG  
GAGGGTGCATTGAAGGAACGCAGAAAGGCAGTAGATGAAGCTGCCGATGCCCTTCTCAAAGCCAAA  
~~GAAGAGTTAGAGAAGATGAAAAGTCTGATTGAAAATGCAAAAGAAAAAGAGGTTGCTGGGGGGGAAAG~~  
CCTCATATAACTGCTGCAGAGGGTAAACTTCAACAATGATAGTTGATCTGGATAATGTGGTCAAA  
AAGGTCCAAGCAGCTCAGTCTGAGGCTAAGGTTGTATCTCAGTATCATGAGCTGGTGGTCCAAGCT  
CGGGATGACTTTTAAACGAGAGCTGGACAGTATTACTCCAGAAGTCTTCTGGGTGGAAAGGAATG  
AGTGTTCAGACTTAGCTGACAAGCTCTCTACTGATGATCTGAACTCCCTCATTGCTCATGCACAT  
CGTCGTATTGATCAGCTGAACAGAGAGCTGGCAGAACAGAAGGCCACCGAAAAGCAGCACATCACG  
TTAGCCTTGGAGAAACAAAAGCTGGAAGAAAAGCGGGCATTGACTCTGCAGTAGCAAAAGCATT  
GAACATCACAGAAGTGAAATACAGGCTGAACAGGACAGAAAGATAGAAGAAGTCAGAGATGCCATG  
GAAAATGAAATGAGAACCAGCTTCGCCGACAGGCAGCTGCCACACTGATCACTTGCGAGATGTC  
CTTAGGGTACAAGAACAGGAATTGAAGTCTGAATTTGAGCAGAACCTGTCTGAGAACTCTCTGAA  
CAAGAATTACAATTTCTGTCGTCTCAGTCAAGAGCAAGTTGACAACCTTACTCTGGATATAAATACT  
GCCTATGCCAGACTCAGAGGAATCGAACAGGCTGTTTCAAGAGCCATGCAGTTGCTGAAGAGGAAGCC  
AGAAAAGCCCACCAACTCTGGCTTTCAGTGGAGGCATTAAAGTACAGCATGAAGACCTCATCTGCA  
GAAACACCTACTATCCCGCTGGGTAGTGCGGTTGAGGCCATCAAAGCCAACTGTTCTGATAATGAA  
TTCACCCAAGCTTTAACCGCAGCTATCCCTCCAGAGTCCCTGACCCGTGGGGTGTACAGTGAAGAG  
ACCCTTAGAGCCCGTTTCTATGCTGTTTCAAAAAGTGGCCCGAAGGGTAGCAATGATTGATGAAGCC  
AGAAATAGCTTGTACAGTACTTCTCTCTCTACAGTCCCTGCTCCTATTCCCACCTCAGCAA  
CTGAAGCCGCCCCCAGAGCTCTGCCCTGAGGATATAAACACATTTAAATTACTGTTCATATGCTTCC  
TATTGCATTGAGCATGGTGATCTGGAGCTAGCAGCAAAGTTTGTCAATCAGCTGAAGGGGGAATCC  
AGACGAGTGGCACAGGACTGGCTGAAGGAAGCCCGAATGACCCTAGAAACGAAACAGATAGTGGA  
ATCCTGACAGCATATGCCAGCGCCGTAGGAATAGGAACCACTCAGGTGCAGCCAGAG

&gt;HP28

CCGCCCGCAGACTCTTTGCTCAAGTACGACACCCCAAGTGCTGGTGAGCCGGAACACGGAGAAACGG  
AGCCCCAAGGCTCGGCTACTGAAAGTCAGCCCCCAGCAGCCTGGACCTTCAGGTTCAAGCCCAAG  
CCACCCAAGACCAAGCTCCCCTCAACTCCCTGTGTCCAGATCCTACAAAGCAGGCAGAAAGAAATC  
TTGAATGCCATACTACCCCCAAGGGAGTGGGTGGAAGACACGCAGCTATGGATCCAGCAGGTGTCC  
AGCACCCCTAGCACCAAGGATGGACGTGGTGACCTCCAGGAGCAGTTAGACTTAAAGCTGCAGCAG  
CGGCAGGCCAGGGAAACAGGCATCTGCCCTGTCCGCAGGGAACTCTACTCACAGTGTTTTGTATGAG  
TTGATCCGGGAGGTCAACATCAACTGTGCGGAGAGGGGGCTGCTGCTGCTGCGAGTCCGGGACGAG  
ATCCGCATGACCATCGCTGCCTACCAGACCTGTACGAGAGCAGCGTGGCGTTTGGCATGAGGAAG  
GCCTGCAGGCTGAGCAGGGGAAGTCAGACATGGAGAGGAAAATCGCAGAATTGGAGACGGAAAAG  
AGAGACCTGGAGAGGCAAGTGAACGAGCAGAAAGGCAAAATGTGAAGCCACTGAGAAGCGGGAGAGC  
GAGAGGCGGCAGGTGAGGAGAAGAAGCACAATGAGGAGATTCAATTCTGAAGCGAACAAATCAG  
CAGCTGAAGGCCCAACTGGAAGGCATTATTGCACCAAGAAG

Figure 6 (continued)

&gt;HSPC232.

CGGCGGCGAGCGGACGGCTGCATTTACGGGGTCTCCCGGAGGGCCAGAGTCGTGGCTTACA GAAGA  
GACGAAATGTGGTCTGAGGGACGATATGAATATGAAAGAATTCCGAGAGAACGAGCACCTCCTCGA  
AGTCATCCCAGTGATGAATCTGGTTATAGATGGACAAGAGACGATCATTCTGCAAGCAGGC AACCT  
GAATACAGGGACATGAGAGATGGCTTTAGAAGAAAAAGTTTCTACTCTTCCCATTATGCGAGAGAG  
CGGTCTCCTTATAAAAGGGACAATACTTTTTTTCAGAGAATCACCTGTTGGCCGAAAGGATTCTCCA  
CACAGCAGATCTGGTTCCAGTGTCACTAGCAGAAGCTACTCTCCAGAAAGGAGCAAATCATACTCT  
TTCCATCAGTCTCAACATAGAAATAAAGAGAGGCCTGTCCAGTCTTTGAAAACATCAAGAGATACT  
TCACCCCTCAAGTGGTTTCAGCAGTTTCTTCATCAAAGGTGTTAGACAAACCCAGTAGGCTAACTGAA  
AAGGAACTTGCTGAGGCTGCAAGCAAGTGGGCTGCTGAAAAGCTAGAGAAATCAGATGAAAGTAAC  
TTGCCTGAAATTTCTGAGTATGAGGCGGGATCCACAGCACCAATTGTTTACTGACCAGCCAGAGGAA  
CCTGAGTCAAACACAACACATGGGATAGAATTATTTGAAGATAGTCAGCTAACCACTCGCTCTAAA  
GCAATAGCATCAAAAACCAAAGAGATTGAACAGGTTTACCGACAAGACTGTGAAAACTTTCGGGATG  
GTGGTGAAAATGCTGATTGAAAAAGATCCTTCATTAGAAAAGTCTATACAGTTTGCAATTGAGGCAG  
AATTTACATGAAATAGGTGAGCGGTGTGTTGAAGAACTCAAGCATTTCATTGCAGAGTATGATACT  
TCCACTCAAGATTTTGGAGAGCCCTTTT

&gt;HYPA

GGCCGCCGCGGAGCAGTCTGAGCCCCGACGATGAGGCCGGGGACGGGAGCTGAGCGTGGAGGCCTC  
ATGATGGGGCACCTGGCATGCATTATGCCCCAATGGGAATGCACCTTATGGGTGAGAGAGCGAAT  
ATGCCCTCCTGTACCTCATGGAATGATGCCGCAGATGATGCCCTTATGGGAGGGGCCACCAATGGGA  
CAAATGCCTGGAATGATGTCGTGAGTAATGCCTGGAATGATGATGTCATATGTCCTCAGGCTTCC  
ATGCAGCCTGCCTTACCGCCAGGAGTAAATAGTATGGATGTAGCAGCAGGTACAGCATCTGGTGCA  
AAATCAATGTGGACTGAACATAAATCACCTGATGGAAGGACTTACTACTACAACACTGAAACCAAA  
CAGTCTACCTGGGAGAAACCAGATGATCTTAAACACCTGCTGAGCAACTCTTATCTAAATGCCCT  
TGGAAGGAATACAAATCAGATTCTGGAAGCCTTACTATTATAATTCTCAAACAAAAGAATCTCGC  
TGGGCCAAACCTAAAGAACTTGAGGATCTTGAAGGATACCAGAATACCATTGTTGCTGGAAGTCTT  
ATTACAAATCAAACCTGCATGCAATGATCAAAGCTGAAGAAAGCAGTAAGCAAGAAGAGTGCACC  
ACAACATCAACAGCTCCAGTCCCTACAACAGAAATTCGACCAACAATGAGCACCATGGCTGCTGCC  
GAAGCAGCAGCTGCTGTTGTTGTCAGCAGCAGCAGCGGCAGCAGCAGCAGCTGCAGCCAATGCT  
AATGCTTCCACTTCTGCTTCTAATACTGTGAGTGAAGTGTTCAGTTGTTCCCTGAGCCTGAAGTT  
ACTTCCATTGTTGCTACTGTGTAGATAATGAGAATACAGTAAC TATTTCAACTGAGGAACAAGCA  
CAACTTACTAGTACCCCTGCTATTTCAGGATCAAAGTGTGGAAGTATCCAGTAATACTGGAGAAGAA  
ACATCTAAGCAAGAACTGTAGCTGATTTTACTCCCAAAAAGAAGAGGAGGAGAGCCAAACAGCA  
AAGAAAACATACACTTGGAATACAAAGGAAGAGGCCAAAGCAAGCTTTTAAAGAATTATTGAAAGAA  
AAGCGGGTACCATCGAATGCTTCATGGGAGCAGGCTATGAAAATGATTATTAATGATCCACGATAC  
AGTGCTTTGGCAAAGTTAAGTGAAAAAAGCAAGCCTTTAATGCCTATAAAGTCCAGGCCAAAAAA  
AAAGAAAAA

&gt;HZFH

CACGCCCCGCTTCGCCGAGGCCGAGTGCCCTGGCCGAGAGCCACCAGCACCTCTCCAAGGAGTCGCTG  
GCGGGGAACAAGCCGGCCAAACGCCGTCCTGCACAAGGTTCTGAACCAGCTGGAGGAGTTGCTGAGC  
GACATGAAGGCGGACGTGACCCGCTGCCAGCCACGCTGTCCCGAATACCCCCCATCGCAGCCCGC  
CTTCAGATGTCCGAGCGCAGCATCCTCAGCCGGCTGGCCAGCAAGGGCACGGAGCCTCACCCACA  
CCGGCCTACCCGCCGGGTCCCTACGCTACACCTCCGGGGTACGGGGCGGCCTTCAGCGCCGCACCC  
GTAGGGGCCCTGGCCGCCGAGGCGCCAATTACAGCCAGATGCCTGCAGGGTCTTCATCACAGCC  
GCCACCAACGGCCCTCCAGTGCTTGTGAAGAAGGAGAAGGAAATGGTGGGGGCATTGGTGTGAGAC  
GGGCTGGATCGGAAGGAGCCCCGAGCCGGGGAGGTGATCTGTATAGACGAC

Figure 6 (continued)

&gt;IKAP

CTCAAAGAAGGCAGTCCGCTGGAGGACCTGGCCCTCCTGGAGGCACTGAGTGAAGTGGTGACAGAAC  
ACTGAAAACCTGAAAGATGAAGTATACCATATTTTAAAGGTACTCTTTCTCTTTGAGTTTGATGAA  
CAAGGAAGGGAATTACAGAAGGCCTTTGAAGATACGCTGCAGTTGATGGAAAGGTCACCTTCAGAA  
ATTTGGACTCTTACTTACCAGCAGAATTCAGCTACCCCGGTTCTAGGTCCCAATTCCTACTGCAAAT  
AGTATCATGGCATCTTATCAGCAACAGAAGACTTCGGTTCCTGTTCTTGATGCTGAGCTTTTATA  
CCACCAAGATCAACAGAAGAACCAGTGGAAGCTGAGCCTGCTAGAC

&gt;IMPD2

GACTTTCTCATTCTCCCTGGGTACATCGACTTCACTGCAGACCAGGTGGACCTGACTTCTGCTCTG  
ACCAAGAAAATCACTCTTAAGACCCCACTGGTTTCTCTCTCCCATGGACACAGTCACAGAGGCTGGG  
ATGGCCATAGCAATGGCGCTTACAGGCGGTATTGGCTTCATCCACCACAACCTGTACACCTGAATTC  
CAGGCCAATGAAGTTCGGAAAGTGAAGAAATATGAACAGGGATTTCATCACAGACCCTGTGGTCCCTC  
AGCGGCAAGGATCGCGTGGGGATGTTTTTGAGGGCCAAGGCGCGGCATGGTTTTCTGCGGTATCCCA  
ATCACAGACACAGGCGGATGGGGAGCCGCTTGGTGGGCATCATCTCTCCAGGGACATTGATTTT  
CTCAAAGAGGAGGAACATGACTGTTTCTTGGAAGAGATAATGACAAAGAGGGAAGACTTGCTGGTA  
GCCCCTGACGGCATCACACTGAAGGAGGCAATGAAATCTGTCAGCGCAGCAAGAAGGGAAAGTTG  
CCCATTGTAAATGAAGATGATGAGCTTGTGGCCATCATTTGCCCGACAGACCTGAAGAAGAATCGG  
GACTACCCACTAGCCTCCAAAGATGCCAAGAAACAGACTGCTGTGTGGGGCAGCCATTGGCACTCAT  
GAGGATGACAAGTATAGGCTGGACTTGCTCGCCCAAGGCTGGTGTGGATGTAGTGGTTTTGACTCT  
TCCCAGGGAAATTCATCTTCCAGATCAATATGATCAAGTACATCAAAGACAAATACCCTAATCTC  
CAAGTCATTGGAGCAATGTGGTCACTGCTGCCAGGCCAAGAACCCTCATTGATGCAGGTGTGGAT  
GCCCCTGCGGGTGGGCATGGGAAGTGGCTCCATCTGCATTACGCAGGAAGTGCTGGCCTGTGGCGG  
CCCCAAGCAACAGCAGTGTACAAGGTGTACAGATATGCACGGCGCTTTGGTGTTCGGGTCAATTGCT  
GATGGAGGAATCCAAATGTGGGTCAATTTGCCGAAAGCCTTGGCCCTTGGGGCCTCCACAGTCATG  
ATGGGCTCTCTCTGGCTGCCACCACTGAGGCCCCCTGGTGAATACTTCTTTTCCGATGGGATCCGG  
CTAAAGAAATATCGCGGTATGGGTCTCTCGATGCCATGGACAAGCACCTCAGCAGCCAGAACAGA  
TATTTCACTGAAGCTGACAAAATCAAAGTGGCCCAGGGAGTGTCTGGTGTGTGCAGGACAAAGGG  
TCAATCCACAAATTTGTCCCTTACCTGATTGCTGGCATCCAACACTCATGCCAGGACATTGGTGCC  
AAGAGCTTGACCCAAGTCCGAGCCATGATGTACTCTGGGGAGCTTAAGTTTGAGAAGAGAACGTCC  
TCAGCCCAGGTGGAAGGTGGCGTCCATAGCCTCCATTCGTATGAGAAGCGGCTTTTC

&gt;KPNA2

GCTTGGGCACTCACTAACATTGCTTCTGGGACATCAGAACAAACCAAGGCTGTGGTAGATGGAGGT  
GCCATCCCAGCATTCATTTCTCTGTTGGCATCTCCCCATGCTCACATCAGTGAACAAGCTGTCTGG  
GCTCTAGGAAACATTCAGGTTGATGGCTCAGTGTTCGAGACTTGGTTATTAAGTACGGTGCAGTT  
GACCCACTGTTGGCTCTCCTTGCACTTCCTGATATGTATCTTTAGCATGTGGCTACTTACGTAAT  
CTTACCTGGACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCCGATAGATGCTGTTGAG  
CAGATTCTTCTTACCTTAGTTCGGCTCCTGCATCATGATGATCCAGAAGTGTAGCAGATACTGCT  
TGGGCTATTTCTTACCTTACTGATGGTCCAAATGAACGAATTGGCATGGTGGTGAACAGGAGTT  
GTGCCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAATTGCCAATTGTGACTCCTGCCCTAAGAGCC  
ATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTGATTGATGCAGGAGCACTCGCC  
GTCTTTCCAGCCTGCTCACCAACCCCAAACTAACATTGAGAAGGAAGCTACGTGGACAATGTCA  
AACATCACAGCCGCGCCAGGACAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTCTCTT  
GTCAGTGTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCAACTAT  
ACCAGTGGTGGAAACAGTTGAACAGATTGTGTACCTTGTTCCTGCTGGCATAATAGAACCCTTGATG  
AACCTCTTAACTGCAAAAGATACCAAGATTATCTGGTTATCTGGATGCCATTTCAAATATCTTT  
CAGGCTGTGAGAACTAGGTGAAACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCTTA  
GACAAAATTGAAGCTCTACAAAACCATGAAAATGAGTCTGTGTATAAGGCTTCGTTAAGCTTAATT  
GAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTTGTACCAGAACTACCTCTGAAGGC  
TACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAAGCTTT

Figure 6 (continued)

&gt;KPNB1

TTGGCAGCTGTGGGCTTAGTGGGAGACTTGTGCCGTGCCCTGCAATCCAACATCATACCTTTCTGT  
GACGAGGTGATGCAGCTGCTTCTGAAAATTTGGGGAATGAGAACGTCCACAGGTCTGTGAAGCCG  
CAGATTCTGTCTAGTGTGTTGGTGATATTGCCCTTGCTATTGGAGGAGAGTTTAAAAAATACTTAGAG  
GTTGTATTGAATACTCTTCAGCAGGCCCTCCCAAGCCCAGGTGGACAAGTCAGACTATGACA.TGGTG  
GATTATCTGAATGAGCTAAGGGAAAGCTGCTTGGGAAGCCTTACTGGAATCGTCCAGGGATTAAAG  
GGGGATCAGGAGAACGTACACCCCGATGTGATGCTGGTACAACCCAGAGTAGAATTTATTC.TGTCT  
TTCATTGACCACATTGCTGGAGATGAGGATCACACAGATGGAGTAGTAGCTTGTGCTGCTGGACTA  
ATAGGGGACTTATGTACAGCATTTCGGGAAGGATGTACTGAAATTAGTAGAAGCTAGGCCAATGATC  
CATGAATTGTTAACTGAAGGGCGGAGATCGAAGACTAACAAAGCAAAAACCCCTTGCTACATGGGCA  
ACAAAAGAACTGAGGAACTGAAGAACCAAGCT

&gt;Ku70

AAGACCCGGACCTTTAATACAAGTACAGGCGGTTTGTCTTCTGCCTAGCGATACCAAGAGGTCTCAG  
ATCTATGGGAGTCGTCAGATTATACTGGAGAAAGAGGAAACAGAAGAGCTAAAACGGTTTGATGAT  
CCAGGTTTGATGCTCATGGGTTTCAAGCCGTTGGTACTGCTGAAGAAACACCATTACCTGAGGCCCC  
TCCCTGTTCGTGTACCCAGAGGAGTCGCTGGTATTGGGAGCTCAACCCTGTTCAGTGCTCTGCTC  
ATCAAGTGTCTGGAGAAGGAGGTTGCAGCATTTGTGCAGATACACACCCCGCAGGAACATCCCTCTCT  
TATTTTGTGGCTTTTGGTGCCACAGGAAGAAGAGTTGGATGACCAGAAAATTCAGGTGACTCCTCCA  
GGCTTCCAGCTGGTCTTTTTACCCTTTGCTGATGATAAAAGGAAGATGCCCTTTACTGAAAAAATC  
ATGGCAACTCCAGAGCAGGTGGGCAAGATGAAGGCTATCGTTGAGAAGCTTCGCTTCACATACAGA  
AGTGACAGCTTTGAGAACCCCGTGTGTCAGCAGCACTTCAGGAACCTGGAGGCCCTTGGCCTTGGAT  
TTGATGGAGCCGGAACAAGCAGTGGACCTGACATTGCCCAAGGTTGAAGCAATGAATAAAAGACTG  
GGCTCCTTGGTGGATGAGTTTAAAGGAGCTTGTTTACCACCCAGATTACAATCCTGAAGGGAAAGTT  
ACCAAGAGAAAAACAGATAATGAAGGTTCTGGAAGCAAAAGGCCCAAGGTGGAGTATTTCAGAAGAG  
GAGCTGAAGACCCACATCAGCAAGGGTACGCTGGGCAAGTTCACTGTGCCCATGCTGAAAGAGGCC  
TGCCGGGCTTACGGGCTGAAGAGTGGGCTGAAGAAGCAGGAGCTGCTGGAAGCCCTCACCAAGCAC  
TTCAGGAC

&gt;LUC7B1

GTCGACGCGGTGCGCGTCGACGCGGCCGCGGTTTCTGCAAAGGCAGAAAAAGTACATGAGTTAAAT  
GAAAAAATAGGAAACTCCTTGCTAAAGCCGAACAGCTAGGGGCTGAAGGTAATGTGGATGAATCC  
CAGAAGATTCTTATGGAAGTGGAAAAAGTTCTGTGCGAAGAAAAAAGAGCTGAGGAAGAATACAGA  
AATTCCATGCCTGCATCCAGTTTTCAGCAGCAAAAGCTGCGTGTCTGCGAGGTCTGTTTCAGCCTAC  
CTTGGTCTCCATGACAATGACCGTCGCTGGCAGACCCTTCGCTGGCAAGTTACACTTGGGGTTT  
ATTTCAGATCCGAGAGAAGCTTGATCAGTTGAGGAAAACTGTGCTGAAAAGCAGGAGAAGAGAAAT  
CAGGATCGCTTGAGGAGGAGAGAGGAGAGGGAACGGGAGGAGCGTCTGAGCAGGAGGTCGGGATCA  
AGAACCAGAGATCCGAGGAGGTCAGCTCCCGGGATCGGCGTGGAGGCGGTCAAGATCTACCTCC  
CGAGAGCCGACGGAAATTGTCCCGGTCCCGGTCCCGAGATAGACATCGGCGCCACCGCAGCCGTTCC  
CGGAGCCACAGCCGGGACATCGTCCGGCTTCCCGGACCGAAGTGCGAAATACAAGTTCTCCAGA  
GAGCGGCATCCAGAGAGGAGTCCTGGGAGAGCGGGCGGAGCGAGCGAGGGCCCCCGGACTGGAGC  
CTTGAGAGCTCCAACGGGAAGATGGCTTCACGGAGGTCAGAAGAGAAGGAGGCCGCGGAGATC

&gt;MAGEH1

GCATCCTTCCCTAGGACTGCTGTAAGCTTTGAGCCTCTAGCAGGAGACATGCCTCGGGGACGAAAG  
AGTCGGCGCGCCGTAATGCGAGAGCCGAGAAGAGAACCGCAACAATCGCAAAATCCAGGCCTCA  
GAGGCCTCCGAGACCCCTATGGCCGCTCTGTGGTAGCGAGCACCCCGAAGACGACCTGAGCGGC  
CCCGAGGAAGACCCGAGCACTCCAGAGGAGGCCCTTACCACCCCTGAAGAAGCCTCGAGCACTGCC  
CAAGCACAAAAGCCTTCAGTGCCCCGGAGCAATTTTCAGGGCACCAAGAAAAGTCTCCTGATGTCT  
ATATTAGCGCTCATCTTCATCATGGGCAACAGCGCCAAGGAAGCTCTGCTCTGGAAGTGCTGGGG  
AAGTTAGGAATGCAGCCTGGACGTGAGCACAGCATCTTTGGAGATCCGAAGAAGATCGTCAAGAA  
GAGTTTGTGCGCAGAGGGTACCTGATTTATAAACCGGTGCCCGTAGCAGTCCGGTGGAGTATGAG  
TTCTTCTGGGGGCCCCGAGCACACGTGGAATCGAGCAAACTGAAAGTCATGCATTTTGTGGCAAGG  
GTTCTGTAACCGATGCTCTAAAGACTGGCCTTGTAAATTATGACTGGGATTCCGACCATGATGCAGAG  
GTTGAGGCTATCCTCAATTCAGGTGCTAGGGGTTATTCCGCCCT

Figure 6 (continued)

&gt;MAP11c3

CAGCGGCGGAGCTTCGCGGACCGCTGTAAGGAGGTACAGCAGATCCGCGACCAGCACCCTCAACAA  
ATCCCGGTGATCATCGAGCGCTACAAGGGTGAGAAGCAGCTGCCCGTCCTGGACAAGACCAAGTTT  
TTGGTCCCGGACCATGTCAACATGAGCGAGTTGGTCAAGATCATCCGGCGCGCCTGCAGCTGAAC  
CCCACGCAGGCCTTCTTCCTGCTGGTGAACCAGCACAGCATGGTGAAGTGTGTCCACGCCCAACCGG  
GACATCTACGAGCAGGAGAAAGACGAGGACGGCTTCCTCTATATGGTCTACGCTCCAGGAAACC  
TTCGGCTTC

&gt;mHAP1

CCGAAAGAGCAGGTGCAGAGCGGTGCGGGAGACGGGACAGGGTCCGGGGACCCAGCAGCAGGCACC  
CCCACGACCCAGCCTGCAGTTGGTCCCGCTCCGGAGCCCTCGGCGGAGCCCAAACCTGCTCCAGCG  
CAGGGAACCGGGTCCGGACAAAATCAGGATCCCGAACCAAGACAGGAAGCTTTTGTTCGGTCCATG  
ATCATTGGTGAATTCGGACGCACCATGGACCCGCTACGTATTCCAGGGGCTTACGGTCCCCGGGCC  
ACTGGCCTGGGCATCGGAAAGGCGAGGGAATCTGGAAGACACGAGCGCGTACATCGGCGGGAGG  
CCCCGGCTGTCCGGCCCTGAGCGTGCGGCGTTTATTTCGAGAGCTGCAGGAAGCGTTGTGTCTAAT  
CCACCACCCACGAAGAAGATCACCGAAGATGATGTCAAAGTGTATGTTGTATTGCTGGAAGAGAAA  
GAACGGGACCTGAACACAGCCGCCCGGATCGGCGAGTCCCTGGTGAAACAGAACAGTGTCTTGATG  
GAGGAGAATAATAAGCTGGAAACCATGCTGGGCTCAGCCAGGGAGGAGATTTTACATCTCCGGAAG  
CAGGTGAACCTGCGAGATGACCTTCTTCAGCTCTACTCAGACTCTGATGACGATGATGAGGAA  
GACGAGGAAGACGAGGAAGAGGGCGAAGAGGAGGAACGAGAAGGACAGAGGGATCAAGACCACGAG  
CACGACCACCCCTATGGTGCCTCCCAAGCCACACCCCTAAGGCTGAGACAGCGCACCGCTGCCACAG  
CTGGAACCCCTGCAGCAGAAGCTCAGGCTTCTGGAGGAAGAGAACGACCACCTGCGAGAGGAGGCC  
TCCCACCTTGACAACCTGGAGGACGAAGAGCAGATGCTCATTCTGGAATGTGTGGAGCAGTTCTCT  
GAAGCCAGCCAGCAGATGGCAGAGCTATCGGAAGTGTGTTGAGGCTGGAAGGCTATGAGAGG  
CAGCAGAAAGAGATCACTCAGCTGCAGGCCGAGATCACCAAGCTACAACAGCGTTGTAGTCTTAT  
GGGGCCAGACGGAGAACTGCAGCAGATGCTGGCCTCAGAGAAGGGGATCCACTCGGAGAGCCTG  
CGAGCTGGCTCCTACATGCAGGATTATGGGAGCAGGCCTCGTGACCGCCAGGAGGATGGGAAGAGT  
CATCGCCAGCGCTCCTCCATGCCCCGAGGCTCTGTCACTCACTATGGATACAGTGTGCTCTGGAT  
GCACTTCCAAGTTTCCAGAGACACTGGCTGAGGAGCTCCGAACATCTCTGAGGAAGTTCACTACT  
GACCTGCGTATTTTCATGGAGAGACGTGACACTCACTGCAGGAGGGGCGTAAGAAGGAGCAGAGG  
GCGATGCCACCCCCACCGCTCA

&gt;mp53

GTCACCGAGACCCCTGGGCCAGTGGCCCCCTGCCCCAGCCACTCCATGGCCCCCTGTATCTTTTGT  
CCTTCTCAAAAACTTACCAGGGCAACTATGGCTTCCACCTGGGCTTCCTGCAGTCTGGGACAGCC  
AAGTCTGTTATGTGCACGTACTCTCCTCCCCTCAATAAGCTATTCTGCCAGCTGGCGAAGACGTGC  
CCTGTGCAGTTGTGGGTGAGCGCCACACCTCCAGCTGGGAGCCGTGTCCGCGCCATGGCCATCTAC  
AAGAAGTCACAGCACATGACGGAGGTCTGTGAGACGCTGCCCCCACCATGAGCGCTGCTCCGATGGT  
GATGGCCTGGCTCCTCCCCAGCATCTTATCCGGGTGGAAGGAAATTTGTATCCCGAGTATCTGGAA  
GACAGGCAGACTTTTCGCCACAGCGTGGTGGTACCTTATGAGCCACCCGAGGCGGCTCTGAGTAT  
ACCACCATCCACTACAAGTACATGTGTAATAGCTCCTGCATGGGGGGCATGAACCGCCGACCTATC  
CTTACCATCATCACTGGAAGACTCCAGTGGGAACCTTCTGGGACGGGACAGCTTTGAGGTTCTGT  
GTTTGTGCTGCTGCCCCAGGGAGCGCAAGAGAGCGCTGCCACCTGCACAAGCGCTCTCCCCG  
TGCCCTGAACTGCCCCAGGGAGCGCAAGAGAGCGCTGCCACCTGCACAAGCGCTCTCCCCG  
CAAAAGAAAAAACCCTTGATGGAGAGTATTTACCCCTCAAGATCCGCGGGCGTAAACGCTTCGAG  
ATGTTCCGGGAGCTGAATGAGGCCTTAGAGTTAAAGGATGCCCATGCTACAGAGGAGTCTGAGAC  
AGCAGGGCTCACTCCAGCTACCTGAAGACCAAGAAGGGCCAGTCTACTTCCCGCCATAAAAAACA  
ATGGTCAAGAAAGTGGGGCTGACTCAGAC

Figure 6 (continued)

&gt;NAG4

CGAGACCGGGTGGAGAATGAGGCAGAAAAAGATCTCCAGTGTACGCCCCCTGTGAGATTAGACTTG  
CCTCCTGAGAAGCCTCTCACAAGCTCTTTAGCCAAACAAGAGAAGTAGAACAGACACCCCTTCAA  
GAAGCTTTGAATCAACTGATGAGACAATTGCAGAGAAAAGATCCAAGTGCTTTCTTTTCATTTCTCT  
GTGACTGATTTTATTGCTCCTGGCTACTCCATGATCATTTAAACACCCAATGGATTTTATAGTACCATG  
AAAGAAAAGATCAAGAACAATGACTATCAGTCCATAGAAGAACTAAAGGATAACTTCAAACCTAATG  
TGTACTAATGCCATGATTTACAAATAAACACAGAGACCATTTATTATAAAGCTGCAAAGAAGCTGTTG  
CACTCAGGAATGAAAATTCTTAGCCAGGAAAGAATTCAGAGCCTGAAGCAGAGCATAGACTTCATG  
GCTGACTTGCAGAAAACCTCGAAAGCAGAAAGATGGAACAGACACCTCACAGAGTGGGGAGGACGGA  
GGCTGCTGGCAGAGAGAGAGAGAGGACTCTGGAGATGCCGAAGCACACGCTTCAAGAGTCCCAGC  
AAAGAAAATAAAAAGAAAGACAAAGATATGCTTGAAGATAAGTTTAAAAGCAATAATTTAGAGAGA  
GAGCAGGAGCAGCTTGACCGCATCGTGAAGGAATCTGGAGGAAAGCTGACCAGGCGGCTTGTTGAAC  
AGTCAGTGCGAATTTGAAAGAAAGAAAACAGATGGAACAACGAGCTTGGGAGTTCTCCATCCTGTG  
GATCCCATTTGTAGGAGAGCCAGGCTACTGCCCTGTGAGACTGGGAATGACAACCTGGAAGACTTCAG  
TCTGGAGTGAAATACTTTGCAGGGGTTCAAAGAGGATAAAAGGAACAAAGTCACTCCAGTGTATAT  
TTGAATTTATGGGCCCTACAGTTCTTATGACCCGCTTATGACTCCACATTTGCAAATATCAGCAAG  
GATGATTTCTGATTTAATCTATTCAACCTATGGGGAAGACTCTGATCTTCCAAGTGATTTTCAGCATC  
CATGAGTTTTTGGCCACGTGCCAAGATTATCCGTATGTCAATGGCAGATAGTTTACTGGATGTTTTTA  
ACAAAAGGAGGGCATTTCCAGGACCCTACAAGAGATGGAGATGTCATTGCCCTGAAGATGAAGGCCAT  
ACTAGGACACTTGACACAGCAAAAGAAATGGAGATTACAGAAGTAGAGCCACCAGGGCGTTTGGAC  
TCCAGTACTCAAGACAGGCTCATAGCGCTGAAAGCAGTAACAAATTTTGGCGTTCCAGTTGAAGTT  
TTTGACTCTGAAAGAGCTGAAATATTCCAGAAGAACTTGATGAGACCACCAGATTGCTCAGGGAA  
CTCCAGGAAGCCCAGAATGAACGTTTGAGCACCAGACCCCCCTCCGAACATGATCTGTCTCTTGGGT  
CCCTCATACAGAGAAATGCATCTTGCTGAACAAGTGACCAATAATCTTAAAGAACTTGACAGCAA  
GTAACTCCAGGTGATATCGTAAGCACGTATGGAGTTGAAAAAGCAATGGGGATTTCCATTCCTTCC  
CCCGTCATGGAAAACAACTTTGTGGATTTGACAGAAGACACTGAAGAACCCTAAAAGACGGATGTT  
GCTGAGTGTGGACCTGGTGGAAAGT

Figure 6 (continued)



&gt;NEFL

CTCTCTCCCTGTCTCTCTCTCCGGGCTCCACCCGCCGCCGCCGGGGAGCCACCGGCCGCC  
ACCATGAGTTCTTTCAGCTACGAGCCGTACTACTCGACCTCCTACAAGCGGCGCTACGTGGAGACG  
CCCCGGGTGCACATCTCCAGCGTGCAGCGGCTACAGCACCGCACGCTCAGCTTACTCCAGCTAC  
TCCGCGCCGGTGTCTTCTCGCTGTCCGTGCGCCGAGCTACTCTCCAGCTCTGGATCGTTGATG  
CCAGTCTGGAGAACCCTCGACCTGAGCCAGGTAGCCGCCATCAGCAACGACCTCAAGTCCA TCCGC  
ACGCAGGAGAAGGCGCAGCTCCAGGACCTCAATGACCGCTTCCGCCAGCTTCATCGAGCGCGTGCAC  
GAGCTGGAGCAGCAGAACAGGTCTTGAAGCCGAGCTGCTGGTGCTGCGCCAGAACACTCCGAG  
CCATCCCGCTTCCGGGCGCTGTACGAGCAGGAGATCCGCGACCTGCGCCTGGCGGCGGAAGATGCC  
ACCAACGAGAAGCAGGCGCTCCAGGGCGAGCGCGAAGGGCTGGAGGAGACCTGCGCAACCTGCGAG  
GCGCGCTATGAAGAGGAGGTGCTGAGCCGCGAGGACGCCGAGGGCCGGCTGATGGAAGCGCGCAAA  
GGCGCCGACGAGGCGCGCTCGCTCGCGCCGAGCTCGAGAAGCGCATCGACAGCTTGATGGACGAA  
ATGTCTTTTGTGAAGAAAGTGCACGAAGAGGAGATCGCCGAAGTGCAGGCGCAGATCCAGTACGCG  
CAGATCTCCGTGGAGATGGACGTGACCAAGCCGACCTTTCCGCCGCGCTCAAGGACATCCGCGCG  
CAGTACGAGAAGCTGGCCGCCAAGAACATGCAAGACGCTGAGGAATGGTTCAAGAGCCGCTTCACC  
GTGCTGACCGAGAGCGCCGCCAAGAACACCGACGCGCTGCGCGCCGCCAAGGACGAGGTGTCCGAG  
AGCCGTCTGTCTCAAGGCCAAGACCTTGAATCGAAGCATGCCGGGGCATGAATGAAGCGCTG  
GAGAAGCAGCTGCAGGAGCTGGAGGACAAGCAGAACGCCGACATCAGCGCTATGCAGGACAAGATC  
AACAAATTAGAAAATGAATTGAGGACCACAAAGAGTGAATGGCAGCATACTAAAGAAATACCAA  
GACCTCCTCAACGTGAAGATGGCTTTGGATATTGAGATTGCAGCTTACAGGAACTCTTGGAAAGC  
GAGGAGACCCGACTCAGTTTACCAGCGTGGGAAGCATAACCAAGTGGCTACTCCCAGAGCTCCCAG  
GTCTTTGGCCGATCTGCCTACGGCGGTTTACAGACCAGCTCCTATCTGATGTCCACCCGCTCCTTC  
CCGTCTACTACACAGCCATGTCCAAGAGGAGCAGATCGAAGTGGAGGAAACCATTGAGGCTGCC  
AAGGCTGAGGAAGCCAAGGATGAGCCCCCTCTGAAGGAGAAGCCGAGGAGGAGGAGAAGGACAAG  
GAAGAGGCCGAGGAAGAGGAGGAGCTGAAGAGGAAGAAGCTGCCAAGGAAGAGTCTGAAGAAGCA  
AAGAAGAAGAAGAAGGAGGTGAAGGTGAAGAAGGAGAGGAAACCAAGAAGCTGAAGAGGAGGAG  
AAGAAAGTTGAAGGTGCTGGGGAGGAACAAGCAGCTAAGAAGAAAGAT

&gt;p53

ATGGAGGAGCCGCGAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGGAAACATTTTCAGACCTA  
TGGAACACTACTTCTGAAAACAACGTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATGATTTGATG  
CTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCAGAAATG  
CCAGAGGCTGCTCCCCCGTGGCCCCCTGCACCAGCAGCTCCTACACCGGCGGCCCTGCAC CAGCC  
CCCTCCTGGCCCTGTCTCTCTGTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGT  
CTGGGCTTCTTGCAATTCTGGGACAGCCAAGTCTGTGACTTGCACGTACTCCCCTGCCCTCAACAAG  
ATGTTTTTGCCAACCTGGCCAAGACCTGCCCTGTGCAGCTGTGGGTTGATTCCACACCCCGCCCGGC  
ACCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAAGCAGCATGACGGAGGTTGTGAGGCGCTGC  
CCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCCTCCTCAGCATCTTATCCGAGTGGAA  
GGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTGCCTAT  
GAGCCGCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACCTACATGTGTAACAGTTCTTGC  
ATGGGCGGCATGAACCGGAGGCCCATCTCACCATCATCACTGGAAGACTCCAGTGGTAATCTA  
CTGGGACGGAACAGCTTTGAGGTGCGTGTGTTGTGCTGTCTGGGAGAGACCGGCGCACAGAGGAA  
GAGAATCTCCGCAAGAAAGGGGAGCCTCACCACGAGCTGCCCCAGGGAGCACTAAGCGAGCACTG  
CCCAACAACACCGACTCTCTCCCCAGCCAAAGAAGAAACCACTGGATGGAGAATATTTCAACCTT  
CAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCGAGAGCTGAATGAGGCCTTGGAACTCAAGGAT  
GCCAGGCTGGGAAGGAGCCAGGGGAGCAGGGCTCACTCCAGCCACCTGAAGTCCAAAAGGGT  
CAGTCTACCTCCCGCCATAAAAACTCATGTTCAAGACAGAAGGGCCTGACTCAGAC

Figure 6 (continued)

&gt; PFN2

GCTCCTCGCCGTCCGCGCTGCAGTGCGAAGGGCTCGAAGATGGCCGGTTGGCAGAGCTACGTGGAT  
AACCTGATGTGCGATGGCTGCTGCCAGGAGGCCGCCATTGTTCGGCTACTGCGACGCCAAATACGTC  
TGGGCAGCCACGGCCGGGGGCGTCTTTTACAGAGCATTACGCCAATAGAAATAGATATGATTGTAGGA  
AAAGACCCGGGAAGGTTTCTTTACCAACGGTTTGAATCTTGGCGCGAAGAAATGCTCAGTGATCAGA  
GATTAGTGTATAGGTCGATGGTGAATGCGAATGGACATCCCGACADAGAGTCAAGGTGGGGAGCCA  
ACATACAATGTGGCTGTTCGGCAGAGCTGGTAGAGTCTTGGTCTTTGTAATGGGAAAAGAAGGGGTC  
CATGGAGGCGGATTGAATAAGAAGGCATACTCAATGGCAAATACTTGAGAGACTCTGGGTTC

&gt; PIASy (bait)

CTGGTGGAGGCCAAAAACATGGTGATGAGTTTTTCGAGTCTCCGACCTTCAGATGCTCCTGGGTTTC  
GTGGGCGCGAGTAAGAGTGGACTGAAGCACGAGCTCGTCACCAGGGCCCTCCAGCTGGTGACGTTT  
GACTGTAGCCCTGAGCTGTTCAAGAAGATCAAGGAGCTGTACGAGACCCGCTACGCCAAGAAGAAC  
TCGGAGCCTGCCCCACAGCCGCACCGGCCCTGGACCCCTGACCATGCACTCCACCTACGACCCGG  
GCCGGCGCTGTGCCCAGGACTCCGCTGGCAGGCCCAATATTGACTACCCCGTGCTCTACGGAAAG  
TACTTAAACGGACTGGGACCGTTGCCCGCCAAGACCTCAAGCCAGAAGTCCGCCTGGTGAAAGCTG  
CCGTTCTTTAATATGCTGAGTGTCTGAAGCCACCGAATTAGTCCACAGAACCAACGAGAAG  
CTTCAGGAGAGCCCGTGCATCTTCGCAATTGACGCCAAGACAGGTGGAGTTGATCCGGAACCTCAGG  
GAACTGCAGCCCCGAGTTAAAGCCGTGCAGGTGCTCCTGAGAATCTGTTACTCAGACACCAGCTGC  
CCTCAGGAGGACCAGTACCCGCCCAACATCGCTGTGAAGGTCAACACAGCTACTGCTCCGTCCCCG  
GGCTACTACCCCTCCAATAAGCCCGGGGTGGAGCCCCAAGAGGCCGTGCCGCCCATCAACCTCACT  
CACCTCATGTACCTGTCTCGGCCACCAACCGCATCACTGTCACTTGGGGGAACCTACGGCAAGAGC  
TACTCGGTGGCCCTGTACCTGGTGCGGCAGCTGACCTCATCGGAGCTGCTGCAGAGGCTGAAGACC  
ATTGGGGTAAAGCACCCGGAGCTGTGCAAGGCACTGGTCAAGGAGAAGCTGCGCCTTGATCCTGAC  
AGCGAGATCGCCACCACCGGTGTGCGGGTGTCCCTCATCTGTCCGCTGGTGAAGATGCGGCTCTCC  
GTGCCCTGCCGGGCAGAGACCTGCGCCACCTGCAGTGCTTCGACGCCGTCTTCTACCTGCAGATG  
AACGAGAAGAAGCCACCTGGATGTGCCCGGTGTGCGACAAGCCAGCCCCCTACGACCAGCTCATC  
ATCGACGGGCTCCTCTCGAAGATCCTGAGCGAGTGTGAGGACGCCGACGAGATCGAGTACCTGGTG  
GACGGCTCGTGGTGCCCGATCCGCGCCGAAAAGGAGCGCAGCTGCAGCCCGCAGGGCGCCATCCTC  
GTGCTGGGCCCCCTCGGACGCCAATGGGCTCCTGCCCGCCCCCAGCGTCAACGGGAGCGGTGCCCTG  
GGCAGCACGGGTGGCGGCGGCCCGGTGGGCAGCATGGAGAATGGGAAGCCGGGCGCCGATGTGGTG  
GACCTCACGCTGGACAGCTCATCGTCTCGGAGGATGAGGAGGAGGAGGAAGAGGAGGAGGAAGAC  
GAGGACGAAGAGGGGCCCCGCCCCAAGCGCCGTGCCCTTCCAGAAGGGCCTGGTGCCGGCCTGC

Figure 6 (continued)



>PIAsy (prey)

CTGGTGGAGGCCAAAAACATGGTGATGAGTTTTCGAGTCTCCGACCTTCAGATGCTCCTGGGTTTC  
GTGGGCCCGAGTAAGAGTGGACTGAAGCACCAGCTCTGTCACCAGGGCCCTCCAGCTGGTGCAGTTT  
GACTGTAGCCCTGAGCTGTTCAAGAAGATCAAGGAGCTGTACGAGACCCGCTACGCCAAGAAGAAC  
TCGGAGCCTGCCCCACAGCCGCACCCGGCCCCCTGGACCCCCCTGACCATGCACTCCACCTACGACCGG  
GGGGGGCTGTGGGAGCACTGGGCTGGCAGGCCCAATATTGACTACCCCGTGTCTTACGGAAAG  
TACTTAAACGACTGGGACGGTTGCCCGCCAAGACCTCAAGCCAGAAGTCCGCGCTGGTGAAGCTG  
CCGTTCCTTTAATATGCTGGATGAGCTGCTGAAGCCCACCGAATTAGTCCCACAGAACAACGAGAAG  
CTTCAGGAGAGCCCGTGCATCTTCGCATTGACGCCAAGACAGGTGGAGTTGATCCGGAACCTCAGG  
GAAGTGCAGCCCCGAGTTAAAGCCCGTGCAGGTGCTCCTGAGAATCTGTTACTCAGACACCAGCTGC  
CCTCAGGAGGACCAAGTACCCGCCCAACATCGCTGTGAAGGTCAACCACAGCTACTGCTCCGTCCCCG  
GGCTACTACCCCTCCAATAAGCCCCGGGGTGGAGCCCCAAGAGGCCGTGCCGCCCATCAACCTCACT  
CACCTCATGTACCTGTCTCGGCCACCAACCGCATCACTGTCACTGGGGGAAGTACGGCAAGAGG  
TACTCGGTGGCCCTGTACCTGCTGCGGCAGCTGACCTCATCGGAGCTGCTGCAGAGGTGAAGACC  
ATTGGGGTAAAGCACC CGAGCTGTGCAAGGCACTGCTCAAGGAGAAGCTGCGCCTTGATCCTGAC  
AGCGAGATCGCCACCACCGGTGTGCGGGTGTCCCTCATCTGTCCGCTGGTGAAGATGCGGCTCTCC  
GTGCCCTGCCGGGCAGAGACCTGCGCCACCTGCAGTGTCTTCGACGCGCTCTTCTACCTGCAGATG  
AACGAGAAGAAGCCCACCTGGATGTGCCCCGTGTGCGACAAGCCAGCCCCCTACGACCAGCTCATC  
ATCGACGGGCTCCTCTCGAAGATCCTGAGCGAGTGTGAGGACGCGACGAGATCGAGTACCTGGTG  
GACGGCTCGTGGTGCCCGATCCGCGCCGAAAAGGAGCGCAGCTGCAGCCCGCAGGGCGCCATCCTC  
GTGCTGGGCCCCCTCGGACGCCAATGGGCTCCTGCCCGCCCCCAGCGTCAACGGGAGCGGTGCCCTG  
GGCAGCACGGGTGGCGGCGGCCCGGTGGGCAGCATGGAGAATGGGAAGCCGGCGCGCGATGTGGTG  
GACCTCACGCTGGACAGCTCATGCTCCTCGGAGGATGAGGAGGAGGAGGAAGAGGAGGAGGAAGAC  
GAGGACGAAGAGGGGCCCCGCCCCAAGCGCGCTGCCCTTCCAGAAGGGCCTGGTGCCGGCCTGC  
>PLIP

GGGAGATAATCGAGGGCTGCCGCTACCCGTGCTGCGGGGAACCAGGACAACGAAGATGAGTGG  
CCCCTGGCCGAGATCCTGAGCGTGAAGGACATCAGTGGCCGGAAGCTTTTCTACGTCCATTACATT  
GACTTCAACAAACGTCTGGATGAATGGGTGACGCATGACCGGCTGGACCTAAAGAAGATCCAGTTC  
CCCAAGAAAGAGGCCAAGACCCCCACTAAGAACCGACTTCTCTGGGTCCCGTCTTGCTCTCCAGAG  
AGAGAGGTGAAACGGAAGGTGGAGGTGGTTTACCAGCAACTCCAGTGCCCAAGCAGACAGCCCCG  
GCCTCGGTTTTTCCCCAGAATGGAGCCGCCCGTAGGGCAGTGGCAGCCCAGCCAGGACGGAAGCGA  
AAATCGAATTGTTTGGGCACTGATGAGGACTCCAGGACAGCTCTGATGGAAATACCGTCAGCACCA  
CGCATGACTGGCAGCCTGGTGTCTGATCGAAGCCACGACGACATCGTCACCCGGATGAAGAACATT  
GAGTGCATTGAGCTGGGCGGCAACCGCTCAAGCCGTGGTACTTCTCCCCGTACCCACAGGAACTC  
ACCACATTGCCTGTCTCTACCTGTGCGAGTTCTGCCTCAAGTACGGCCGTAGTCTCAAGTGTCTT  
CAGCGTCATTGACCAAGTGTGACCTACGACATCCTCCAGGCAATGAGATTTACCGCAAGGGCACC  
ATCTCCTTCTTTGAGATTGATGGACGTAAGAACAAGAGTTATTTCCAGAACCTGTGTCTTTTGGCC  
AAGTGTTCCTTGACCATAAGACACTGTACTATGACACAGACCCCTTCTCTTCTACGTCTATGACA  
GAGTATGACTGTAAGGGCTTCCACATCGTGGGCTACTTCTCCAAGGAGAAAGAATCAACGGAAGAC  
TACAATGTGGCCTGCATCCTAACCTGCCCTCCCTACCAGCGCCGGGGCTACGGCAAGCTGCTGATC  
GAGTTCAGCTATGAACTCTCCAAGTGGAGGGGAAAACAGGGACCCCTGAGAAGCCCCCTCTCAGAC  
CTTGGCCTCCTATCCTATCGAAGCTACTGGTCCCAGACCATCCTGGAGATCCTGATGGGGCTGAAG  
TCGGAGAGCGGGGAGAGGCCACAGATCACCATCAATGAGATTAGTGAAATCACCAGCATCAAGAAG  
GAGGATGTCTCTCACTCTGCAGTACCTCAATCTCATCACTACTACAAGGGCCAGTACATCCTC  
ACACTGTGAGAGGACATCGTGGATGGCCATGAGCGGGCCATGCTCAAGCGGCTCCTGCGGATCGAC  
TCCAAGTGTCTGCACTTCACTCCCAAGGACTGGAGCAAGAGGGGGAAGTGG

Figure 6 (continued)

&gt;PTN

TTGAGTCAAAGGCAGGATCAGGTTCCCGCCTTCCAGTCCAAAAATCCCGCCAAGAGAGCCCCAGA  
GCAGAGGAAAATCCAAAGTGGAGAGAGGGGAAGAAAGAGACCAGTGAGTCATCCGTCCAGAAGGCG  
GGGAGAGCAGCAGCGGCCCAAGCAGGAGCTGCAGCCAGCCGGGTACCTGGACTCAGCGGTAGCAAC  
CTCGCCCTTGCACAAAGGCAGACTGAGCGCCAGAGAGGACGTTTCCAACCTCAAAAATGCAGGCT  
CAGCAGTACGAGGAGGAGCGTGGAAAATTTGCAGCTGCCTTCTTGGCATTCATTTTTCATACCTGGCA  
GCTGTGGATACTGCTGAAGCAGGGAAGAAAGAGAAACCAGAAAAAAAGTGAAAGAGTCTGACTGT  
GGAGAATGGCAGTGGAGTGTGTGTGTGCCACCACTGGAGACTGTGGGCTGGGCACACGGGAGGGC  
ACTCGGACTGGAGCTGAGTGCAAGCAAACCATGAAGACCCAGAGATGTAAGATCCCCTGCAACTGG  
AAGAAGCAATTTGGCGCGGAGTGCAAATACCAGTTCCAGGCCTGGGGAGAATGTGACCTGAACACA  
GCCCTGAAGACCAGAACTGGAAGTCTGAAGCGAGCCCTGCACAATGCCGAATGCCAGAAGACTGTC  
ACCATCTCCAAGCCCTGTGGCAAACCTGACCAAGCCCAAACCTCAAGCAGAATCTAAGAAGAAGAAA  
AAGGAAGGCAAGAAACAGGAGAAGATGCTGGAT

&gt;PTPK

AGTAACTACATCAATGCTGCTCTTATGGACAGCTACAGGCAACCAGCTGCTTTTCATCGTCACACAA  
TACCCTCTGCCAAACACTGTAAAGACTTCTGGAGATTAGTGTATGATTATGGCTGTACCTCCATT  
GTGATGTTAAACGAAGTCGACTTGTCCCAGGGCTGCCCTCAGTACTGGCCAGAGGAAGGGATGCTA  
CGATATGGCCCCATCCAAGTGGAAATGTATGTTCTTCAATGGACTGTGATGTGATCAACCGGATT  
TTTAGGATATGCAATCTAAACAGACCACAGGAAGGTTATCTGATGGTGCAACAGTTTCAGTACCTA  
GGATGGGCTTCTCATCGAGAAGTGCCTGGATCCAAAAGGTCATTCTTGAAACTGATACTTCAGGTG  
GAAAAGTGGCAGGAGGAATGCCAGGAAGGGGAAGGCCGACGATTATCCACTGCCCTAAATGGTGGC  
GGCGAAGTGGCATGTTCTGTGCTATAGGCATCGTTGTTGAAATGGTGAAACGGCAAAATGTTGTC  
GATGTTTTCCATGCAGTAAAGACACTGAGGAACAGCAAGCCAAACATGGTGGAAGCCCCGGAGCAA  
TACCGTTTTCTGCTATGATGTAGCTTTGGAGTACCTGGAATCATCT

&gt;SETBD1

AAGGCCTCCACCTCAGGACTAGGCATCAAGGATGAGGGAGACATCAAACAGGCCAAGAAAGAGGAC  
ACTGACGACCGAAACAAGATGTCAGTAGTTACTGAAAGCTCTCGAAATTACGGTTACAATCCTTCT  
CCTGTGAAGCCTGAAGGACTTCGCCGCCACCTAGTAAGACTAGTATGCATCAAAGCCGAAGACTC  
ATGGCTTCTGCTCAGTCCAACCCTGATGATGTCTTGACACTGTCCAGCAGCACAGAAAGTGAGGGG  
GAAAGTGGGACCAGCCGAAAGCCCACTGCTGGTCAGACTTCGGCTACAGCGGTTGACAGTGATGAT  
ATCCAGACCATATCCTCTGGCTCTGAAGGGGATGACTTTGAGGACAAGAAGAACATGACTGGTCCA  
ATGAAGCGTCAAGTGGCAGTAAATCAACCCGAGGCTTTGCTCTTAAATCAACCCATGGGATTGCA  
ATTAAATCAACCAACATGGCCTCTGTGGACAAGGGGGAGAGCGCACCTGTTGTAAGAACACACGC  
CAATTCTATGATGGCGAGGAGTCTTGCTACATCATTGATGCCAAGCTTGAAGGCAACCTGGGCCCC  
TACCTCAACCAAGTTGCAGCCCCAACCTGTTTGTCCAGAATGTCTTCGTGGATACCCATGATCTT  
CGCTTCCCCTGGGTGGCCTTCTTTGCCAGCAAAAGAATCCGGGCTGGGACAGAACTTACTTGGGAC  
TACAACTACGAGGTGGGCAGTGTGGAAGGCAAGGAGCTACTCTGTTGCTGTGGGGCCATTGAATGC  
AGAGGACGTCTTCTT

Figure 6 (continued)

&gt;SH3 GL3

GTGGCCGGGCTGAAGAAGCAGTTCCACAAAGCCAGCCAGCTATTTAGTGAAAAAATAAGTG GTGCT  
 GAAAGCACTAACTAGACCATGAATTTCTTGACATGGAAAGGAAATAGATGTTACCAATAAAGTT  
 GTTGCAAGAAATTTCTTTCAAAAACCACTGAATACTTTAGCCAAATCCAGCATACAGAGCTAAGCTA  
 GGAATGCTGAACACTGTGTGCGAAGATCCGAGGGCAGGTGAAGACCACAGGATACCCGCAGACGGAA  
 GGGTTGGTGGGGCAGTCTATGCTGAAATAACGGGAAGGAGCTCGGGGAAGACTCCACCTTTTGCAAT  
 GCATTGATAGAAGTTGGTGAATCCATGAAGCTAATGGCTGAGGTGAAAGACTCTCTTGATAATTAAT  
 GTAAAGCAAACCTTTTATTGATCCACTTCAGTTACTACAAGATAAAGATTTAAAAGAGATCGGCGCAT  
 CACCTGAAAAAGCTGGAAGGCCGCCGCTGGATTACGATTATAAAAAGAAACGAGTAGGTAAGATA  
 CAGACGAAAGAAGTCAGACAAGCCGTAGAAAATTTGAAGAGTCAAAGGAGTTGGCTGAAAGAACG  
 ATGTTTAACTTTTATGAAAATGATGTAGAACAAAGTCAGCCAGTTGGCTGTGTTTATAGAGGCAGCA  
 TTAGACTATCACAACAGTCCACAGAGATTTCTGCAGGAGCTGCAGACCAAGCTACAGATGCCAATA  
 TCAGCTGCACTGCACTGTGCGCAGAGCGAATAACAAGGCAAGGCCCTGTGAAAAGGAGTTGTAGTGAG  
 CTCAATGGAGTTTCCACCACCTCTGTAGTGAAGACGACAGGTTCTAACATTCCCATGGACCAGCCC  
 TGCTGTCGTGGTCTCTATGACTTTGAGCCAGAAAACCAAGGAGAATTAGGATTTAAAGAAGGGGAC  
 ATCATTACATTAACCAATCAAAATAGATGAAAACCTGGTATGAAGGAATGATACACGGAGAATCGGGA  
 TTCTTCCCCATTAATTACGTGGAAGTGATCGTGCCCTTTACCTCAG

&gt;SUMO-2

CGGCCCCGCGCACAGTTGCGGCGGGAGAGCGGCGGGGCCGAGAGCGTGACTCGCCCGCTCCGCGCT  
 GCTTCCCCCGCGCGCCTCCCCGCGCGCTCGCGCAGCCATGTCCGAGGAGAAGCCCAAGGAGGGT  
 GTGAAGACAGAGAATGACCACATCAACCTGAAGGTGCGCGGCGAGGACCGCTCCGTGGTGCAGTTT  
 AAGATCAAGAGCCACACGCCGCTGAGCAAGCTGATGAAGGCCCTACTCGAGAGGCAGGGCTTGTCA  
 ATGAGGCAGATCAGATTCAGGTTGACCGGGCAGCCAAATCAATGAAACTGACACTCCAGCACAGCTG  
 GAGATGGAGGACGAGGACACCATCGACGTGTTCCAGCAGCAGACGGGAGGTGTGCGGAGAGCAGC  
 CTGGCAGGGCACAGTTTC

&gt;SUMO-3

CCCTCGTCCACCGCTGCGCGCTCCTTCTTCTGCGGCTCCTGGTGCTGCTTGTGTGCTCGTTTGGTG  
 CGGACCTGGTAGCTCTTTTGTGAAGCGGCAGCTGAGGAGACTCCGGCGCTCGCCATGGCGGACGAA  
 AAGCCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTGAAGGTGGCGGGGAGGAT  
 GGTTCGTGTGCTGAGTTTAAAGATTAAAGAGGCATACACCCTTAGTAAACTAATGAAAGCCATTGT  
 GAACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTTGACCGGCAACCAATCAATGAAACA  
 GACACACCTGCACAGTTGGAAATGGAGGATGAAGATACAATTGATGTGTTCCAACAGCAGACGGGA  
 GGTGTCTAG

&gt;TALL

AGCTCACCCGTGAAGCGTCAGAGGATGGAGTCGCGGCTGGACCAGCTCAAGCAGTTTACCACCGTG  
 GTGGCCGACACGGGCGACTTCCACGCCATCGACGAGTACAAGCCCCAGGATGCTACCAACCAACCCG  
 TCCCTGATCCTGGCCGCGAGCACAGATGCCCGCTTAACAGGAGCTGGTGGAGGAGGCGATTGCCCTAT  
 GGCCGGAAGCTGGGCGGGTCAAGAGGACCAGATTAAAAATGCTATTGATAAACTTTTGTGTTG  
 TTTGGAGCAGAAATACTAAAGAAGATTCCGGGCGGAGTATCCACAGAAGTAGACGCAAGGCTCTCC  
 TTTGATAAAGATGCCATGGTGGCCAGAGCCAGGCGGCTCATCGAGCTCTACAAGGAAGCTGGGATC  
 AGCAAGGACCGAATTCTTATAAAGCTGTCTAACCTGGGAAGGAATTGAGGCTGGAAAGCAGCTC  
 GAGGAGCAGCACGGCATCCACTGCAACATGACGTTACTCTTCTCCTTCGCCCAGGCTGTGGCGCTGT  
 GCGGAGGCGGGTGTGACCCCTCATCTCCCCATTTGTTGGGCGCATCCTTGATTGGCATGTGGCAAA  
 ACCGACAAGAAATCCTATGAGCCCCCTGGAAAGACCTGGGGTAAAGAGTGTCACTAAAATCTACAAC  
 TACTACAAGAAAGTTTAGCTACAAAACCATTTGTATGCGGCGGCTCCTTCCGCAACACGGGCGAGATC  
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 AACGCCAAGCTGGTGGCTGTGCTCAGGCCAAGGGGGCCCAAGCCAGTGACCTGGAAAAAATCCAG  
 CTGGATGAGAAGTCTTTCCGTTGGTTGCACAACGAGGACCAAGATGGCTGTGGAGAAGCTCTCTGAC  
 GGGATCCGCAAGTTTGGCGCTGATGCAAGTGAAGCTGGAGCGGATGCTGACAGAACGAATGTTCAAT  
 GCAGAGAATGCAAG

Figure 6 (continued)

&gt;TCPG

CAGACTGACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTAC  
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TCAGATTTAGCTCAGCACTACCTTATGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACA  
GACAATAATCGCATTGCTAGAGCCTGTGGGGCCCGGATAGTCAGCCGACCAGAGGAAGTGAAGAGAA  
GATGATGTTGGAAACAGGAGCAGGCCCTGTTGGAAATCAAGAAAATTGGAGATGAATACTTTTACTTTG  
ATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTTCTCTCCGGGGGGCTAGCAAAAGAGATTCTC  
TCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTGCGCAATGTTCTCTGGACCCTCAG  
CTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCCTTGACAGAAAAATCCAAGGCC  
ATGACTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCAGGCCCTAGAGGTCATTCTCTCGTACC  
CTGATCCAGAAGTGTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGGCCAAGCACACCCAG  
GAGAACTGTGAGACCTGGGGTGTAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGC  
ATATGGGAGCCATTGGCTGTGAAGCTGCAGACTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTA  
CTGCCAATTGATGACATCGTTTCAGGCCACAAAAGAAAGGCGATGACCAGAGCCGGCAAGGCGGG  
GCTCCTGATGCTGGCCAGGAG

&gt;VIM

TCCCCGCGCCAGAGACGCGAGCCGCGCTCCACCACCCACACCCACCGCGCCCTCGTTCGCTCTTTC  
TCCGGGAGCCAGTCCGCGCCACCGCCGCGCCAGGCCATCGCCACCCTCCGCAGCCATGTCCACC  
AGGTCCGTGTCTCTCGTCTCTTACCAGCAGGATGTTTCGGCGGCCCGGGCACCGCGAGCCGGCCGAGC  
TCCAGCCGGAGCTACGTGACTACGTCCACCCGCGACCTACAGCCTGGGCAGCGCGCTGCGCCCGAGC  
ACCAGCCGCGAGCCTCTACGCCTCGTCCCCGGGGCGGCGTGTATGCCACGCGCTCCTCTGCGGTGCGC  
CTGCGGAGCAGCGTCCCCGGGGTGGCGCTCCTGCAGGACTCGGTGGACTTCTCGCTGGCCGAGCC  
ATCAACACCGAGTTCAAGAACACCCGCGACCAACGAGAAGGTGGAGCTGCAGGAGCTGAATGACCGC  
TTCGCCAATACATCGACAAGGTGCGCTTCTTGAGCAGCAGAGAATAAGATCCTGCTGGCCGAGCTC  
GAGCAGCTCAAGGGCCCAAGGCAAGTCGCGCTTGGGGGACCTCTACGAGGAGGAGATGCGGGAGCTG  
CGCCGGCAGGTGGACCAGCTAACCAACGACAAAGCCCGCGTTCGAGGTGGAGCGCGACAACCTGGCC  
GAGGACATCATGCGCCTCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAAC  
ACCCTGCAATCTTTTCAAGACAGGATGTTGACAATGCGTCTCTGGCACGTCTTGACCTTGAAACGAAA  
GTGGAATCTTTGCAAGAAGAGATTGCCCTTTTGAAGAACTCCACGAAGAGGAAATCCAGGAGCTG  
CAGGCTCAGATTACGGAACAGCATGTCCAAATCGATGTGGATGTTTCCAAGCCTGACCTCACGGCT  
GCCCTGCGTGACGTACGTACGCAATATGAAAGTGTGGCTGCCAAGAACCTGCAGGAGGCAGAAGAA  
TGGTACAAATCCAAGTTTGTGACCTCTCTGAGGCTGCCAACCGGAACAATGACGCCCTGCGCCAG  
GCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTT  
AAAGGAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCT  
GCTAACTACCAAGACACTATTGGCCGCTGCAGGATGAGATTGAGAATATGAAGGAGGAAATGGCT  
CGTCACCTTCGTGAATACCAAGACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACC  
TACAGGAAGCTGCTGGAAGGCGAGGAGAGCAGGATTTCTCTGCCCTCTTCCAAACTTTTCTCCTG  
AACCTGAGGGAAACTAATCTGGATTCACTCCCTCTGGTTGATACCACTCAAAAAGGACACTTCTG  
ATTAAGACGGTTGAAACTAGAGATGGACAGGTTATCAACGAACTTCTCAGCATCACGATGACCTT  
GAA

Figure 6 (continued)

&gt;VIMc

CAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAACACCCTGCAATCTTTTCAGACAGGATGTTGAC  
AATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAAGTGGAAATCTTTGCAAGAAGAGATTGCTTTT  
TTGAAGAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTAGGAACAGCATGTCCAA  
ATCGATGTGGATGTTTCCAAGCCTGACCTCACGGCTGCCCTGCGTGACGTACGTACGCAATATGAA  
AGTGTGGCTGCCAAGAACCTGCAGGAGGCAGAAATGGTACAAATCCAAGTTTGCTGACCTCTCT  
GAGGCTGCCAACCGGAACAAATGACGCCCTGCGCCAGGCAAAAGCAGGAGTCCACTGAGTACCGGAGA  
CAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTTAAAGGAACCAATGAGTCCCTGGAACGCCAG  
ATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAGACACTATTGGCCGCCTG  
CAGGATGAGATTGAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAGACCTGCTC  
AATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCCGAGGAGAGC  
AGGATTTCTCTGCCCTCTTCCAACTTTTCTCCCTGAACCTGAGGGAACTAATCTGGATTCACTC  
CCTCTGGTTGATACCCACTCAAAAAGGACACTTCTGATTAAAGACGGTTGAAACTAGAGATGGACAG  
GTTATCAACGAACTTCTCAGCATCACGATGACCTTGAA

&gt;ZHX1

GAACAAACAATAAATGATCTGACTTTTGATGGTAGTTTTGTTAAAGAGGAGAATGCAGAGCAAGCA  
GAATCTACAGAAGTTTCTTCTTCGGGAATATCTATCAGTAAAACTCCTATCATGAAAATGATGAAA  
AATAAAGTGGAAAATAAACGGATTGCAGTTTATCATAACTCAGTTGAGGACGTTCTTGAAGAGAAA  
GAGAATGAAATCAAACCAGACCGTGAAGAAATTGTAGAAAATCCAAGTTCTTCAGCTTCTGAATCT  
AATACAAGTACTTCCATTGTAAACAGAATACATCCAAGTACTGCCAGCACGGTAGTGACACCAGCA  
GCAGTTCTTCTTGGATTGGCACAGGTGATAACTGCTGTATCTGCTCAGCAGAATTCTAATTTGATT  
CCCAAAGTCTTAATCCCTGTTAATAGCATTCCCACCTACAATGCTGCATTGGATAACAATCCCCTT  
TTACTTAACACCTACAACAAGTTCCCTTACCCAACAATGTGAGAAATTACAGTTCTTTCTGCTCAA  
GCAAAATATACAGAGGAACAGATCAAGATATGGTTTTAGCCCAACGTTTAAACATGGTGTAGT  
TGGACTCCCGAGGAAGTAGAGGAGGCAAGAAGGAAACAATTCAATGGAACAGTGCATACTGTACCT  
CAGACCATAACTGTTATTCCTACACACATTTCCACAGGGAGTAATGGTTTACCATCTATTTTACAG  
ACATGCCAAATAGTTGGTCAGCCTGGTCTGGTCTTACTCAAGTGGCTGGAACAAACACCTTGCCA  
GTTACAGCACCTATAGCCTTGACAGTGGCAGGCGTTCCAAGTCAAAATAATATACAGAAAAGTCAG  
GTACCTGCTGCTCAGCCTACTGCAGAAACAAAGCCAGCAACAGCAGCAGTTCCAACCTTCTCAAAGT  
GTCAAACATGAAACTGCATTGGTAAACCTTGATTCAATTTGGCATTTCGGGCCAAAAAGACAAAAGAG  
CAACTGGCAGAAATTAAGGTTAGCTACCTTAAAGAAATCAGTTTCCCATGATTTCAGAAATTATCAGA  
CTTATGAAAATAACAGGCTGACGAAAGGAGAGATTAAAAATGGTTTAGTGACACAAGGTACAAC  
CAGAGAAATTCAAAGAGTAATCAGTGCTTACATCTCAACAATGATTCTCTACCACCATTATTATA  
GACTCCAGTGATGAAACCACGGAATCCCCAAGTGTGGTACTGCACAGCCTAAGCAATCTTGGAAAT  
CCTTTTCTGACTTTTACTCCCCAAAAGTTTAAAGAGAAAAGTGCAGAGCAGCTTCGTGTCCTTCAG  
GCAAGTTTTCTCAACAGCTCTGTACTTACAGATGAAGAATTAAATAGGTTAAGGGCACAAACCAA  
CTTACCAGAAGAGAAATCGATGCTTGGTTTACAGAGAAGAAGAAATCAAAGCTTTAAAGGAAGAG  
AAAATGGAAATAGATGAAAGTAATGCAGGTAGTTCCAAGAAGAAGCTGGAGAAACTTCTCCTGCA  
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CACATGCTTAAGAGTGCATTTGTCCGGACACAGTGGCCATCACCAGAAGAGTATGACAAGTTGGCC  
AAAGAAAGCGGGCTTGCTAGAACAGACATAGTTAGTTGGTTTGGGGACACCCGTTATGCTTGGAG  
AATGGAACTTGAAATGGTACTACTATCAGAGCGCCAATTCAAGTAGTATGAATGGTCTGTCT  
TCCCTTAGGAAAAGAGGGAGAGGCCAAAGGACGGGGAAGAGGAAGACCGCGTGGGCGGCCT  
AGAGGAAGCAAAGAATTAACAACCTGGGACAGGGGACCATCACTCATAAAATTTAAAGTGAAGT  
GCAATACTTAAGGATTATTACCTGAAGCACAAAGTTCTTAATGAGCAAGACCTTGATGAACTTGTT  
AACAAATCACATATGGGCTATGAGCAGGTGAGAGAGTGGTTTGCAGAAAGACAGAGAAGATCAGAA  
TTAGGTATAGAATTATTTGAGGAAAATGAGGAGGAAGATGAAGTTATTGATGACCAGGAAGAGGAT  
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TCAGATGAC

Figure 6 (continued)

&gt;ZNF33B

TGTTATGAATGTGGGAAAACCTTCTGCTTGAAGTCAGACCTCACAATACATCAGAGAACGCACACA  
GGGGAGAAACCCCTTTGCATGTCCTGAATGTGGGAAATTCTTTAGCCATAAGTCAACCCCTCTCTCAA  
CATTATAGAACACACACGGGGGAGAAACCCTATGAATGTCATGAATGTGGAAAAATCTTTTACAAT  
AAATCATAACCTAACAAAACATAATAGAACACATACAGGGGAGAAACCCTATGAATGTAATGAATGT  
GGAAAAACCTTCTGCGCAGAAAGTCACAACTCACTCAGCATCAGAGAATTACATAGGGGAGAAACCC  
TATGAATGTAATGAGTGTGGAAAAGCTTTCTGCCATAAGTCAGCTCTAATTGTACATCAGAGAAAC  
CATACACAAGAAAAGCCTTATAAATGTAACGAATGTGGAAAATCTTTCTGTGTGAAGTCAGGACTT  
ATTTTACATGAGAGAAAGCACACGGGGGAGAAACCCTATGAATGCAATGAATGTGGGAAATCCTTC  
AGTCACAAATCATCACTCACAGTACATTACAGGGCTCACACAGGAGAGAAATCTTGTCAGTGTAAT  
GAATGTGGAAAAATCTTTTACCGTAAATCAGACCTTGCTAAACATCAGAGATCACATACAGGGGAA  
AAGCCCTATGAATGTAACACATGCAGGAAAACCTTCTCTCAAAGTCAAATCTCATTGTACATCAG  
AGAACACACATAGGAGAAAAACCTTATGAA

Figure 6 (continued)

## Nucleotide sequence data (fasta format)

&gt;GDF9

CACAGCTGGTATTCCCTTCACTATAAAAGGAGGCGCTTCCAGGGTCTGACCAGGAGAGAACTGTGTCTGCCTAT  
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TCTGAATTGAAGAAGCCCTTGGGCCCAGCTTCCCTTCAATCTGAGTGAATACTTCAGACAATTTCTTCTTCCCCAA  
AATGAGTGTGAGCTCCATGACTTTAGACTTAGCTTTAGTCAGCTGAAGTGGGACAACCTGGATTGTGGCTCCGCAC  
AGGTACAACCCTCGATACTGTAAAGGGGACTGTCCAAGGGCAGTTGGACATCGGTATGGCTCTCCAGTTTACACC  
ATGGTACAGAACATCATCTATGAGAAGCTGGACTCCTCAGTGCCAAGACCGTCATGTGTACCTGCCAAATACAGC  
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TGCACCTGTCTGT

&gt;GAPD

CCTGTTTCGACAGTCAGCCGCATCTTCTTTTGCCTCGCCAGCCGAGCCACATCGCTCAGACACCATGGGGAAGGTG  
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CACATGGCCTCCAAGGAG

&gt;MOV34

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CCGGTGCTCAGCACAGACAAGTTCAAGACAGATTTTTATGATCAATGCAACGACGTGGGGCTCATGGCCTACCTC  
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## Protein sequence data (fasta format)

&gt;GDF9

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Figure 6 (continued)



AAAAAAAAATNGTGGSSGMEVDAAVVPVSMACGVTGSVSVALHPLVILNISDHWIRMRSQEGRPVQVIGALIGKQ  
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LKLNPMTKHTDATMLFAELTYTLATEEAERIGVDHVARMATGSGENSTVAEHLIAQHSAIKMLHSRVKLILEYV  
KASEAGEVPFNHEILREAYALCHCLPVLSTDKFKTDFYDQCNDVGLMAYLGTITKTCNTMNQFVNKFNVLYDRQG  
IGRRMRGLFF

Figure 6 (continued)

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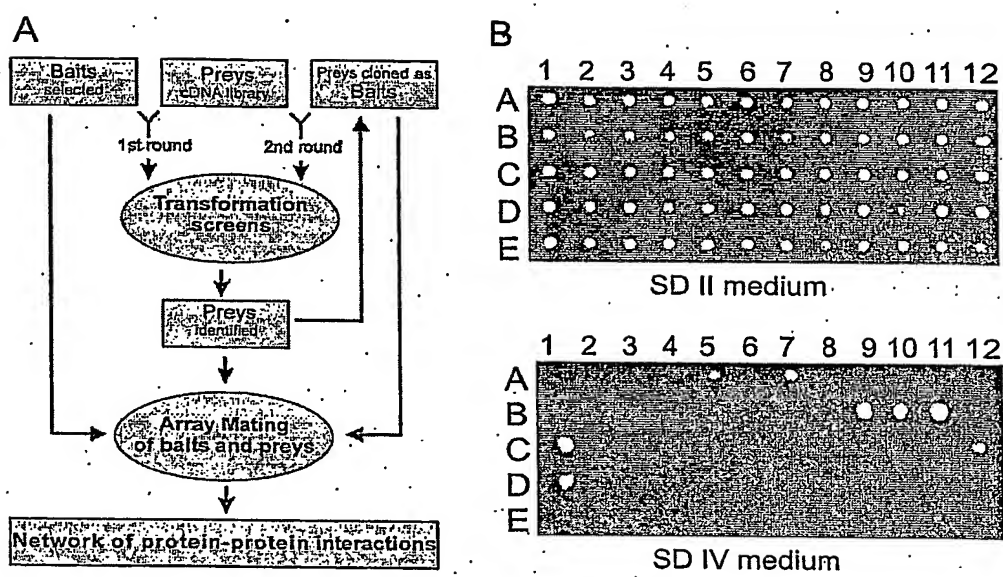


Figure 7



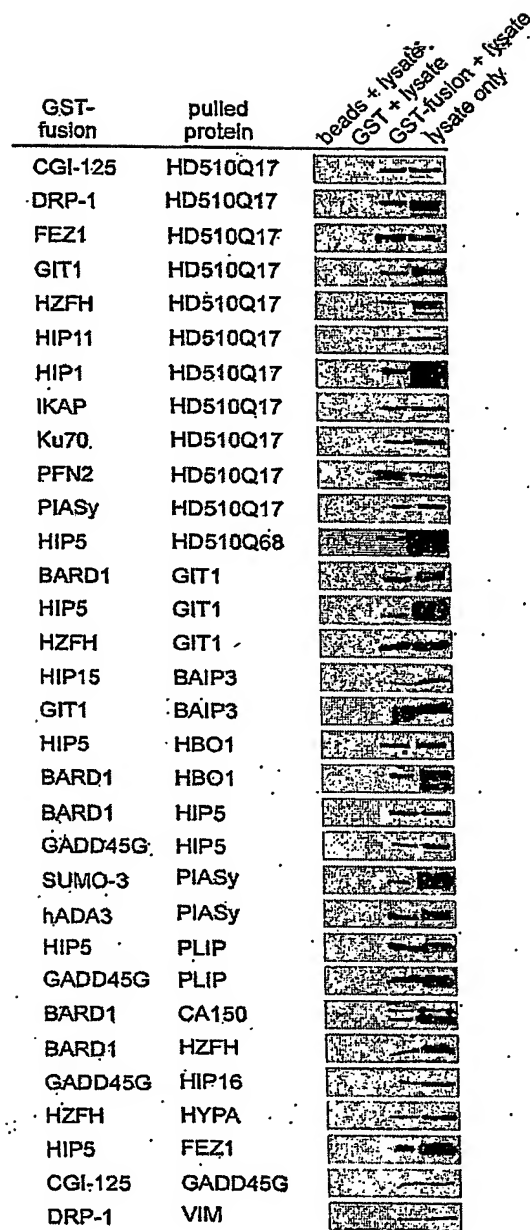


Figure 9

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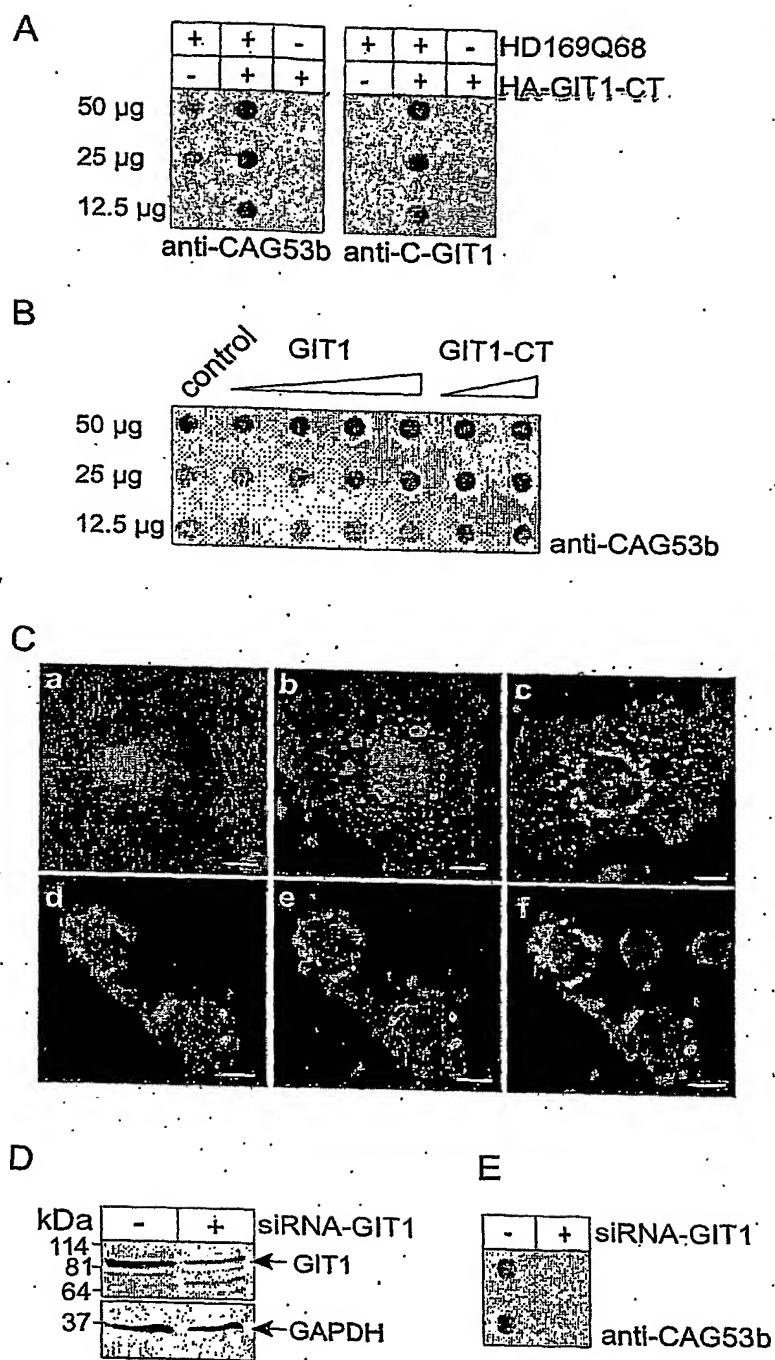


Figure 10

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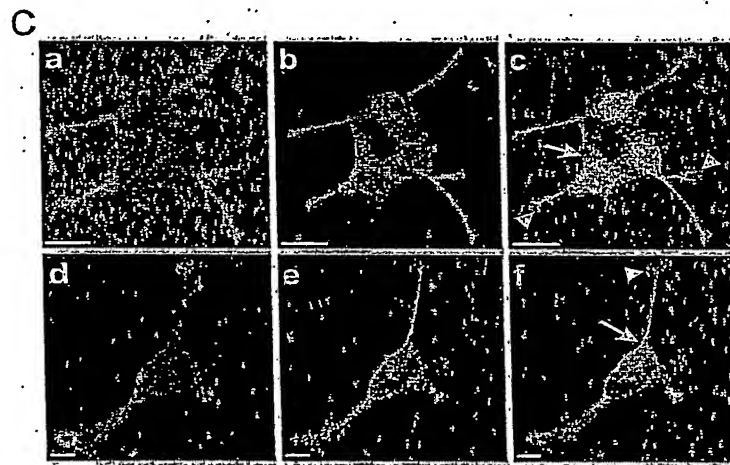
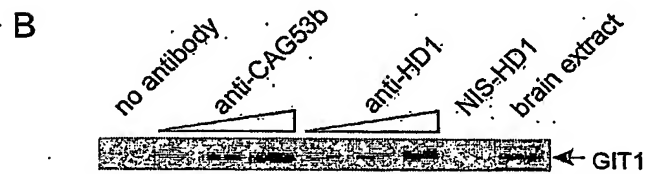
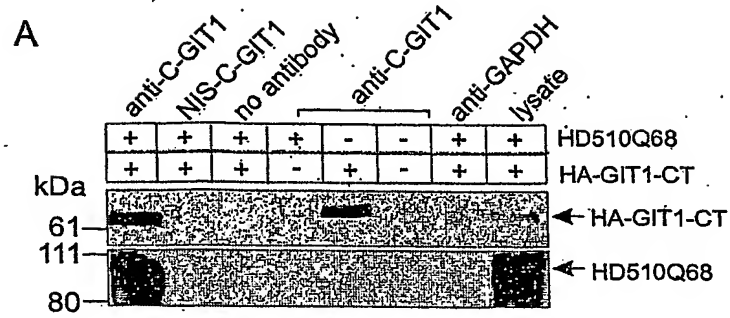


Figure 11

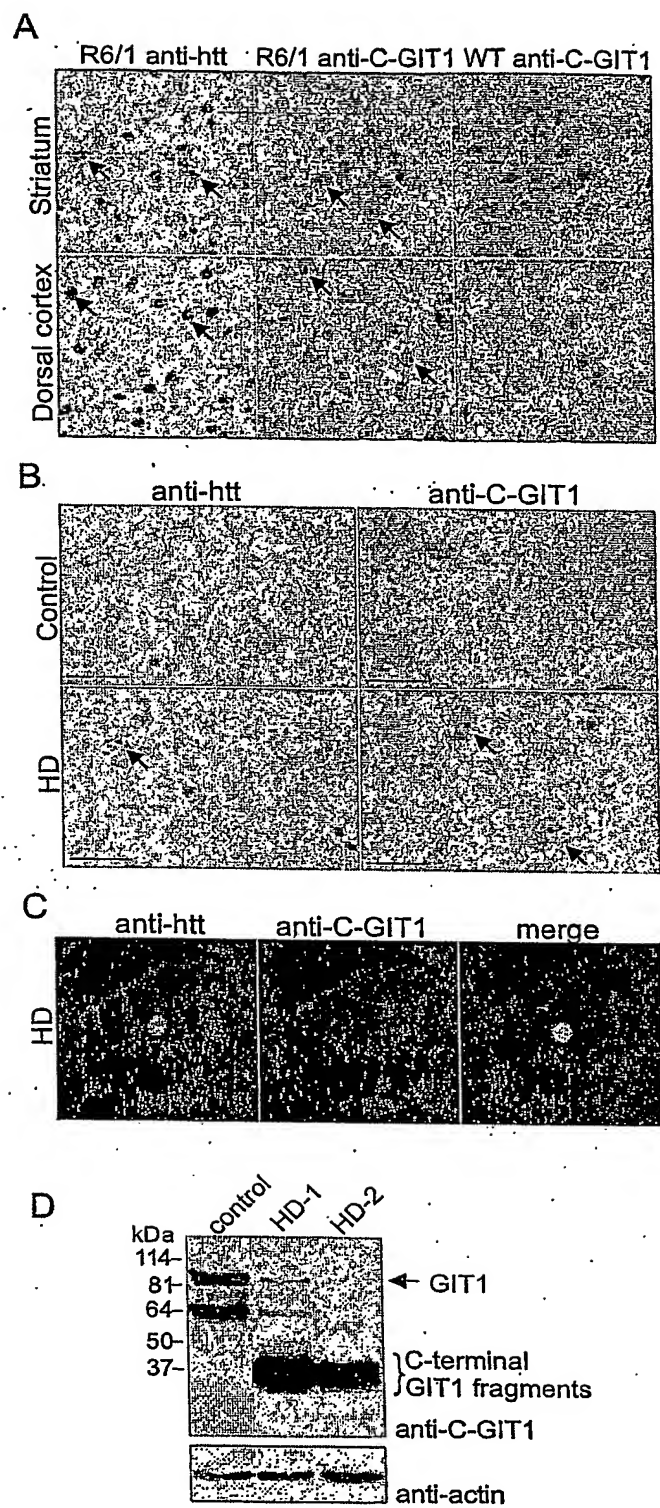


Figure 12

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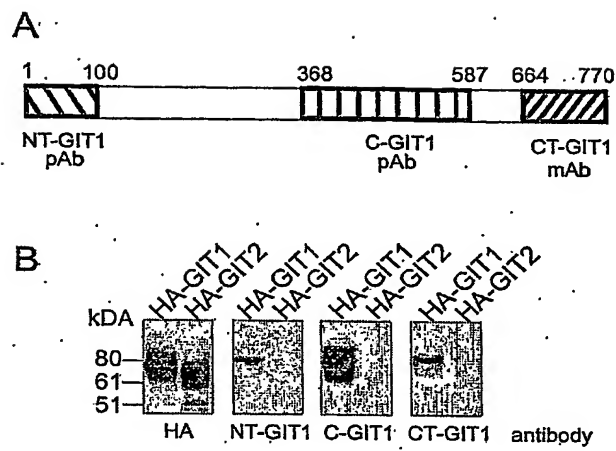


Figure 13